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ABSTRACT

This manual familiarizes data users with the procedures followed for data collection and processing of the high school transcript component of the National Education Longitudinal Study of 1988 (NELS:88). A second objective is to provide the necessary documentation for using the data files. Chapter 6 and appendix F, in particular, contain information that will allow the user to incur minimal startup cost. The rest of the manual provides a wide range of information on NELS:88. Chapter 1 gives an overview of the study. Chapter 2 contains a description of the data collection materials and procedures. Chapter 3 documents sample design and weighting procedures, while chapter 4 concentrates on data control and preparation. Data processing, including the conversion of transcript data to machine-readable form, machine editing, and construction of the merged, clean data tapes is described in chapter 5. In addition to startup information, chapter 6 describes the organization and contents of the data files and provides important suggestions for using them. The 16 appendixes provide a wealth of supplemental information, including: transcript survey data collection materials; grade conversion scales; NELS:88 Transcript Data weights, flags and composite variables; codebooks for the transcript component; glossary of NELS:88 terminology; and a list of NELS:88 publications. Four figures and 11 tables in the text illustrate the discussion. (SLD)

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User's Manual

March 1995

National Education Longitudinal Study of 1988

Second Follow-Up: Transcript Component Data File User's Manual

NELS 88
TEACHERS PARENTS SCHOOLS STUDENTS

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National Center for Education Statistics

"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

March 1995

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Foreword

This manual has been produced to familiarize data users with the procedures followed for data collection and processing of the high school transcript component of the National Education Longitudinal Study of 1988 (NELS:88). A corollary objective is to provide the necessary documentation for use of the data files.

Use of the data set does not require the analyst to be a statistician or sophisticated computer programmer. Most social scientists and policy analysts should find the data set organized in a manner that facilitates straightforward production of statistical summaries and analyses. This manual provides extensive documentation of the content of the data files and how to use them. **Chapter VI and Appendix F, in particular, contain essential information that allows the user to immediately proceed with minimal startup cost. A careful reading of Chapter VI and Appendix F will help users to avoid common mistakes that result in costly computer job failures or incorrect results.**

The rest of the manual provides a wide range of information on the National Education Longitudinal Study of 1988 (NELS:88). Chapter I begins with an overview and history of NCES's National Education Longitudinal Studies program and the various studies that it comprises. Chapter II contains a description of the data collection materials and procedures used in the NELS:88 second follow-up transcript component. Appendix N contains information about data collection instruments, procedures, and results for the second follow-up student and dropout surveys.

The sample design and weighting procedures used in the second follow-up are documented in Chapter III, as well as non-sampling measurement errors and problematic variables. Appendix O describes sample design and weighting procedures for the base year and first follow-up studies.

Chapter IV describes data control and data preparation activities such as monitoring receipt of transcripts, data entry and coding, and retrieval and archiving. Data processing, including the conversion of transcript data to machine-readable form, machine editing, and construction of the merged, clean data tapes is the subject of Chapter V. Finally, Chapter VI describes the organization and contents of the data files and provides important suggestions for using them.

Additional appendices contain printouts of the transcript data entry screens; specifications for weights, flags, and composite variables included on the transcript file; lists of CSSC courses included in course credit summary composite variables; and complete lists of CSSC codes and primary titles, sorted by code and by course title. Codebooks for the transcript data constitutes Appendix I.

Earlier NCES longitudinal studies that may be of interest to NELS:88 users are also described in Appendix B of *NELS:88 Second Follow-Up: Student Component Data File User's Manual*. They include: the High School and Beyond (HS&B) base year files; merged HS&B first, second, third and fourth follow-up files; related HS&B files; and assorted files related to the National Longitudinal Study of the High School Class of 1972 (NLS-72).

A Note on Data Use and Confidentiality

The NELS:88 second follow-up data files are released in accordance with the provisions of the General Education Provisions Act (GEPA) [20-USC 122e 1] and the Carl D. Perkins Vocational Education Act. The GEPA assures privacy by ensuring that respondents will never be individually identified.

The National Center for Education Statistics (NCES) is responsible under Public Law 100-297 for protecting the confidentiality of individually identifiable respondents, and is releasing this data set to be used for statistical purposes only. Record matching or deductive disclosure by any user is prohibited.

To ensure that the confidentiality provisions contained in PL 100-297 and the Privacy Act have been fully implemented, procedures commonly applied for disclosure avoidance in other Government-sponsored surveys were used in preparing the data files associated with this manual. These include suppressing, abridging, and recoding identifiable variables. Every effort has been made to provide the maximum research information that is consistent with reasonable confidentiality protections. Deleted, abridged, and/or recoded variables appear with an explanatory footnote in the codebook attached to each user's manual.

For confidentiality reasons, the transcript data file is available only on a restricted use basis, under a signed licensure agreement with NCES.

Acknowledgements

A study such as this is built first and foremost upon the students, dropouts, teachers, school administrators, and parents who have so generously provided its basic data. We are grateful for their cooperation. We also thank the considerable numbers of school personnel who have assisted in the implementation of NELS:88.

We are also grateful to the members of NCES staff in the Longitudinal and Household Studies Branch who worked closely with us on this project. Jeffrey Owings, chief of the Longitudinal and Household Studies Branch; Peggy Quinn, project officer for the second follow-up; as well as other branch staff--Ralph Lee, Shi-Chang Wu, and Jerry West--who contributed to various aspects of this study. Bob Burton of the Statistical Standards and Methodology Division supplied statistical advice and review. Marilyn McMillen provided technical review of this document.

We would like to express our appreciation to the members of what began in the base year as our National Advisory Panel, and became in 1989 the NELS:88 Technical Review Panel. The panelists--Jerald G. Bachman, Gordon Ensign, Lyle V. Jones, Nancy Karweit, Richard J. Murnane, Patricia Shell, Marshall S. Smith, and John Stiglmeier--provided wise counsel on many difficult issues of design, instrumentation and implementation. As consultants to the second follow-up, Aaron Pallas, Joan Talbert, the late Leigh Burstein, Anthony Bryk, Barbara Schneider, and Senta Raizen also contributed importantly to the design and ultimate success of the study.

We would also like to thank Stanley Legum and Nancy Caldwell of Westat, Inc. for invaluable information related to the 1987 and 1990 NAEP High School Transcript Studies. The project also benefitted from the comments and suggestions of John Tuma of MPR Associates, Ken Rasinski of NORC, Becky Hayward of the Research Triangle Institute, and Robert H. Meyer of the University of Chicago.

Steven J. Ingels was overall NELS:88 second follow-up project director. Katy Dowd was associate project director responsible for the transcript component, with John Taylor serving as the transcript survey task leader and Lisa Thalji as associate project director responsible for securing school cooperation and locating NELS:88 cohort members. Terri Migler served as the financial manager for the second follow-up. Laura Reed and Virginia Bartot were the data processing managers, and Martin R. Frankel was the task leader for sampling and statistics. Susan Heine and Bronwyn Nichols supervised transcript data entry and course coding.

The authors also wish to acknowledge those who contributed to the production of this manual. Doug Barge, Michael Ma, Gloria Rauens, Supriti Sehra, Shiow-Ling Tsai-Ma, and Hsiuling Young provided a great deal of their time and expertise to produce the statistics reported throughout the manual.

Table of Contents

Foreword iii

A Note on Data Use and Confidentiality iv

Acknowledgements v

I. Introduction 1

1.1 The NELS:88 Second Follow-Up Transcript Survey 1

1.2 The Second Follow-Up Transcript Survey Sample 1

1.3 Structure of the Transcript Component Data Files 2

1.4 Overview 2

1.4.1 NCES's National Education Longitudinal Studies Program 2

1.4.2 The National Longitudinal Study of the 1970s: NLS-72 2

1.4.3 High School and Beyond of the 1980s: HS&B 3

1.5 The National Education Longitudinal Study of 1988: Overview 3

1.6 NELS:88 Second Follow-Up Tapes, CD-ROMs, and Documentation 6

II. Transcript Survey Data Collection Materials and Procedures 8

2.1 Data Collection Materials 8

2.2 Data Collection Procedures 9

2.3 Data Collection Results 10

III. Second Follow-Up Sample Design and Implementation 14

3.1 Second Follow-Up Sample Design 14

3.2 Calculation of Second Follow-Up Weights 20

3.3 Standard Errors and Design Effects 24

3.4 Additional Sources of Nonobservational Error 31

3.4.1 Biases Caused by Undercoverage of Special Populations 31

3.4.2 Unit and Item Nonresponse 34

IV. Data Control and Preparation 41

4.1 Receipt Control 41

4.2 Retrieval 41

4.3 Transcript Entry 41

4.3.1 Data Entry Procedures 42

4.4 Course Coding 44

4.4.1 Coder Training 44

4.4.2 Coding Procedures 44

4.5 Transcript Entry Quality Control 45

4.6 Course Coding Quality Control 45

V. Data Processing 47

5.1 Machine Editing 47

5.2 Data File Preparation 47

VI. Guide to the Transcript Component Data Files and Documentation 49

6.1 Basics for Analyses: Second Follow-Up Sample Indicators and Statistical Weights 51

6.1.1 Transcript Cross-Sectional and Panel Weights 51

6.1.2 Defining Analysis Populations 52

6.1.3 Other Weights 53

6.2 Content and Organization of the Data Files 53

6.2.1 Student Data File 53

6.2.2 Course Data File 54

6.2.3 Identification Codes 55

6.2.4 Composite Variables 55

6.3 Guide to the Transcript Component Codebooks 56

6.4 Restricted Use Data Files 57

Appendices

Appendix A: Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data

Appendix B: Transcript Survey Data Collection Materials

Appendix C: Printouts of the Transcript Data Entry Screens

Appendix D: Grade Conversion Scales

Appendix E: Record Layouts for the Transcript Data Files

Appendix F: Guidelines for Using SAS with the NELS:88 Transcript Data

Appendix G: NELS:88 Transcript Data Weights, Flags, and Composite Variables

Appendix H: Course Content Lists for HS&B and NAEP-Equivalent Subject Area Summary Composite Variables

Appendix I: NELS:88 Second Follow-Up Transcript Component Codebooks

Appendix J: Classification of Secondary School Courses Subject and Program Areas

Appendix K: Classification of Secondary School Courses, in Code Order

Appendix L: Classification of Secondary School Courses, in Alphabetical Order

Appendix M: Glossary of NELS:88 Terminology

Appendix N: NELS:88 Student and Dropout Components: Descriptions of Data Collection Instruments and Procedures

Appendix O: NELS:88 Base Year and First Follow-Up Sample Design and Implementation

Appendix P: NCES NELS:88 Publications

I. Introduction

This manual provides guidance and documentation for users of the data for the transcript component of the National Education Longitudinal Study of 1988 (NELS:88). Information about the purpose of the study, data collection materials, sample design, data collection, and data processing procedures is presented in the manual. This chapter describes the purpose of the transcript survey, its sample design, and the structure of the transcript data files, and offers an overview of the National Center for Education Statistics' National Education Longitudinal Studies Program. More detailed information about NELS:88 study objectives, base year, first follow-up, and second follow-up study and sample design, and data tapes and documentation may be found in the first chapter of the *NELS:88 Second Follow-Up: Student Component Data File User's Manual*.

1.1 The NELS:88 Second Follow-Up Transcript Survey

The NELS:88 second follow-up transcript data set is a unique information source supporting a wide spectrum of analyses. Transcript data, when merged with student and dropout data from the base year and first and second follow-up surveys and the contextual data files (school administrator, teacher, and parent) provide a valuable framework for the analysis of academic persistence and educational outcomes in relation to tracking, course-taking, and curriculum exposure. Transcripts furnish reliable and objective indicators of educational outcomes, as measured by course grades and credits, and provide key data points for the years (1989 and 1991) in which sample members were not surveyed. NELS:88 transcript data will further provide a baseline against which future outcomes can be compared (for example, they can be used to quantify the degree to which high school course-taking is predictive of persistence and achievement in postsecondary education, or of later position in the occupational structure).

The transcript data set may also be used in stand-alone analyses of course-taking and curriculum exposure for various NELS:88 longitudinal panels and cross-sectional cohorts. Furthermore, NELS:88 transcript data will illuminate trends when contrasted to the 1982 HS&B high school transcript study and the 1987 and 1990 National Assessment of Educational Progress (NAEP) high school transcript studies.

1.2 The Second Follow-Up Transcript Survey Sample

Transcript data spanning the three or four years of high school (ninth or tenth through twelfth grades) were collected for 1) students attending, in the spring of 1992, one of the second follow-up contextual schools;[1] 2) all dropouts and dropouts in alternative programs who had attended high school for a minimum of one term; 3) all early graduates, regardless of whether they attended one of the contextual schools; and 4) triple ineligibles enrolled in the twelfth grade in the spring of 1992, regardless of whether they attended a contextual school. Triple ineligibles are sample members who were ineligible for the base year, first follow-up, and second follow-up surveys due to mental or physical disability, or language barrier. The transcript data collected from schools included student-level data (e.g., number of days absent per school year, standardized test scores) and complete course-taking histories. Complete high school course-taking records were, of course, obtained only for those transcript survey sample members who graduated by the end of the spring term of 1992; incomplete records were collected for sample members who had dropped out of school, had fallen behind the modal progression sequence, or were enrolled in a special education program requiring or allowing more than twelve years of schooling.

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[1] Schools selected for the contextual components of the second follow-up--the school administrator and teacher surveys--are referred to as *contextual* schools. Sample members enrolled in those schools are referred to as *contextual* students.

1.3 Structure of the Transcript Component Data Files

Two data files, the student file and the course file, constitute the transcript component data set. The student file contains one record for every sample member for whom a transcript was collected. The student record includes the student identification number; transcript survey weight; student-level variables abstracted from transcripts (e.g., number of absences per school year, class rank, class size); flags and composites copied from the base year, first follow-up, and second follow-up student component data files; and flags and composites constructed from course-level data (e.g., F2RENG_C, total number of Carnegie units earned in English courses). The course file contains one record for every secondary school course taken by sample members on the student file. Course records consist of the student identification number, the term and course identification number sequentially assigned to the course by the data entry program, and course-specific variables, including course title, course code (assigned from the Classification of Secondary School Courses), grade level at the time the course was taken, credits earned, and grade. Student and course files may be merged using student identification numbers.

1.4 Overview

1.4.1 NCES's National Education Longitudinal Studies Program

The U.S. Department of Education's National Center for Education Statistics (NCES) is mandated to "collect and disseminate statistics and other data related to education in the United States" and to "conduct and publish reports on specific analyses of the meaning and significance of such statistics" (Education Amendments of 1974-Public Law 93-380, Title V, Section 501, amending Part A of the General Education Provisions Act).

Consistent with this mandate and in response to the need for policy-relevant, time-series data on nationally representative samples of elementary and secondary school students, NCES instituted the National Education Longitudinal Studies (NELS) program. The general aim of the NELS program is to study the educational, vocational, and personal development of students at various grade levels, and the personal, familial, social, institutional, and cultural factors that may affect that development. The NELS program currently consists of three major studies: the National Longitudinal Study of the High School Class of 1972 (NLS-72); High School and Beyond (HS&B); and the National Education Longitudinal Study of 1988 (NELS:88). Taken together, these studies represent the educational experience of youth from three decades--the 1970s, 1980s, and 1990s. Figure 1-1 illustrates the increasing number of issues that have become part of NCES's National Education Longitudinal Studies research agenda. A brief description of these issues is followed by a review of NELS:88.

1.4.2 The National Longitudinal Study of the 1970s: NLS-72

The first of the NELS projects, the National Longitudinal Study of the High School Class of 1972 (NLS-72), began in the spring of 1972 with a survey of a national probability sample of 19,001 seniors from 1,061 public, secular private, and church-affiliated high schools. The sample was designed to be representative of the approximately three million high school seniors enrolled in more than 17,000 schools in the spring of 1972. Each sample member was asked to complete a student questionnaire and a 69-minute test battery. School administrators were also asked to supply survey data on each student, as well as information about the schools' programs, resources, and grading systems. (Transcript data provided by school administrators in the NLS-72 base year survey included the student's high school grade average, college admission test scores [SAT, ACT], courses taken, and major course of study.) Five follow-ups, conducted in 1973, 1974, 1976, 1979, and 1986, have been completed.

In addition to background information, the NLS-72 base year and follow-up surveys collected data on respondents' educational activities, such as schools attended, grades received, and degree of satisfaction with their educational institutions. Participants were also asked about work experiences, periods of unemployment, job satisfaction, military service, marital status, and children. Attitudinal information on self-concept, goals, participation in political activities, and ratings of their high schools are other topics for which respondents have supplied information.

1.4.3 High School and Beyond of the 1980s: HS&B

The next major longitudinal study sponsored by NCES was High School and Beyond. HS&B was initiated in order to capture changes that had occurred in education-related and more general social conditions, in federal and state programs, and in the needs and characteristics of students since the time of the earlier survey. Thus, HS&B was designed to maintain the flow of education data to policymakers at all levels who need to base their decisions on data that are reliable, relevant, and current.

Base year data collection was conducted in the spring of 1980. Students were selected using a two-stage probability sample with schools as the first-stage units and students within schools as the second-stage units. Unlike NLS-72, HS&B included cohorts of both tenth and twelfth graders. Since the base year data collection in 1980, four follow-ups of the HS&B cohorts have been completed: one in the spring of 1982; one in the spring of 1984; one in the spring of 1986, and (for the sophomore cohort only) one in the spring of 1992. High school transcripts were collected for a subsample comprising 15,941 members of the tenth-grade cohort in the fall of 1982, as part of the first follow-up survey.

The four NELS program cohorts (NLS-72 seniors, the HS&B sophomores and seniors, and NELS:88 eighth graders) are displayed in Figure 1-2 according to their initial and subsequent survey years and their modal age at the time of each survey. As illustrated, NLS-72 seniors were first surveyed in 1972 at age eighteen and have been resurveyed five times since, with the last survey occurring in 1986, when these respondents were about thirty-two years of age. The HS&B cohorts have been surveyed at points in time that would permit as much comparison as possible with the time points selected for NLS-72. NELS:88 is designed to fit into this larger analytical scheme. The NELS:88 first follow-up sophomore class of 1990 parallels the HS&B sophomore class of 1980; similarly, the second follow-up senior class of 1992 will parallel the 1980 and 1982 HS&B, and 1972 NLS-72 senior classes.[2]

1.5 The National Education Longitudinal Study of 1988: Overview

The **base year** of the National Education Longitudinal Study of 1988 (NELS:88) represented the first stage of a major longitudinal effort designed to provide trend data about critical transitions experienced by students as they leave elementary school and progress through high school and into postsecondary institutions or the work force. This study of the 1988 eighth-grade cohort collects data about educational processes and outcomes pertaining to student learning, early predictors of dropping out,

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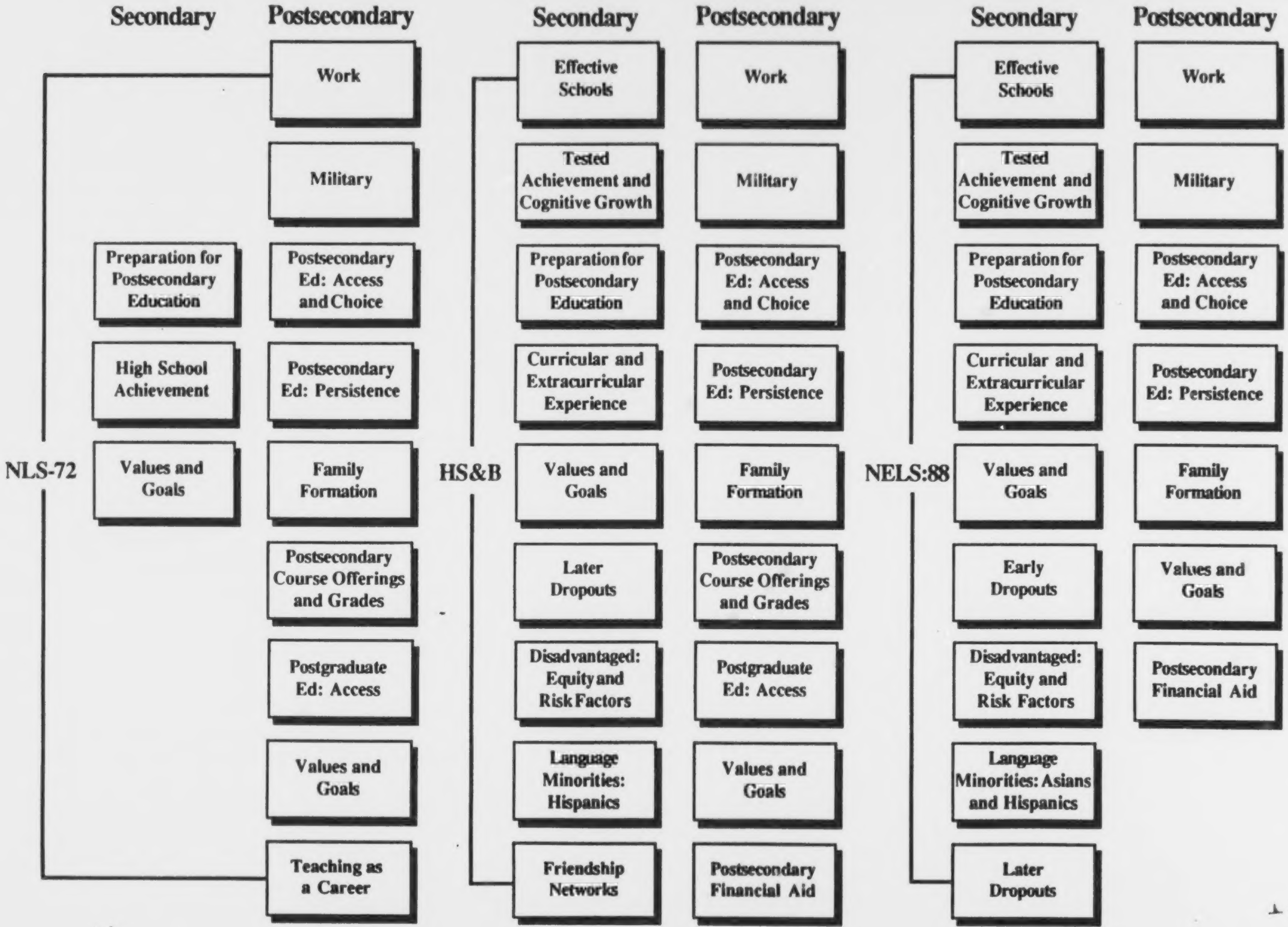
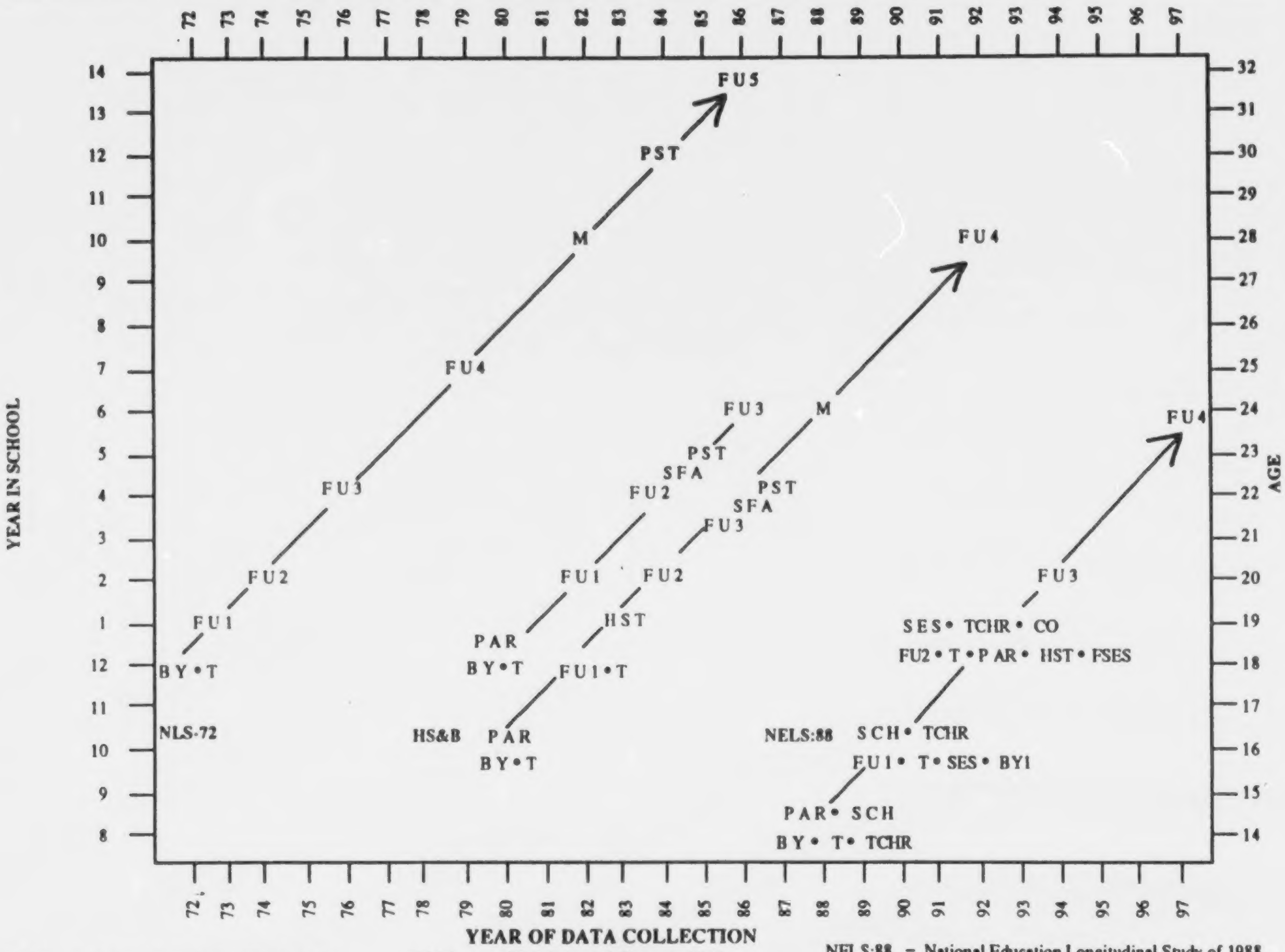
[2] Note, however, that the HS&B 1980 sophomore cohort in 1982 does not strictly constitute a representative sample of the nation's 1982 seniors, but rather a representative sample of 1980 sophomores two years later. Because of the sample freshening that took place in NELS:88 (but not in HS&B), the subset of NELS:88 sample members who were high school seniors in the spring of 1992 are nationally representative of seniors and are comparable to the NLS-72 and HS&B 1980 probability samples of twelfth graders. See Ingels and Baldridge, 1994, *Conducting Trend Analyses of NLS-72, HS&B and NELS:88 Seniors,* NCES, and Appendix A of this manual for a more complete discussion of cohort comparability issues.

Figure 1-1: Development of key research issues for the NCES National Education Longitudinal Studies Program



NLS-72		HS&B		NELS:88	
Secondary	Postsecondary	Secondary	Postsecondary	Secondary	Postsecondary
	Work	Effective Schools	Work	Effective Schools	Work
	Military	Tested Achievement and Cognitive Growth	Military	Tested Achievement and Cognitive Growth	Military
Preparation for Postsecondary Education	Postsecondary Ed: Access and Choice	Preparation for Postsecondary Education	Postsecondary Ed: Access and Choice	Preparation for Postsecondary Education	Postsecondary Ed: Access and Choice
High School Achievement	Postsecondary Ed: Persistence	Curricular and Extracurricular Experience	Postsecondary Ed: Persistence	Curricular and Extracurricular Experience	Postsecondary Ed: Persistence
Values and Goals	Family Formation	Values and Goals	Family Formation	Values and Goals	Family Formation
	Postsecondary Course Offerings and Grades	Later Dropouts	Postsecondary Course Offerings and Grades	Early Dropouts	Values and Goals
	Postgraduate Ed: Access	Disadvantaged: Equity and Risk Factors	Postgraduate Ed: Access	Disadvantaged: Equity and Risk Factors	Postsecondary Financial Aid
	Values and Goals	Language Minorities: Hispanics	Values and Goals	Language Minorities: Asians and Hispanics	
	Teaching as a Career	Friendship Networks	Postsecondary Financial Aid	Later Dropouts	

Figure 1-2: Research design for the NCES National Education Longitudinal Studies (NELS) program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YEAR IN SCHOOL
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AGE
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NLS-72
B Y • T
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F U 2
F U 3
F U 4
M
P S T
F U 5
HS&B
P A R
B Y • T
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P S T
F U 3
P A R
B Y • T
F U 1 • T
H S T
F U 2
F U 3
S F A
P S T
M
F U 4
NELS:88
P A R • S C H
B Y • T • TCHR
S C H • TCHR
F U 1 • T • SES • BY1
FU2 • T • P AR • HST • FSES
S E S • TCHR • CO
F U 3
F U 4
YEAR OF DATA COLLECTION

NLS-72 = National Longitudinal Study of the High School Class of 1972
BY = Base year data collection
FU1 = First follow-up data collection
FU2 = Second follow-up data collection
FU3 = Third follow-up data collection
FU4 = Fourth follow-up data collection
FU5 = Fifth follow-up data collection
M = Maintenance of address date
PST = Postsecondary education transcripts
T = Cognitive test administration

HS&B = High School & Beyond: 1980
BY = Base year data collection
FU1 = First follow-up data collection
FU2 = Second follow-up data collection
FU3 = Third follow-up data collection
FU4 = Fourth follow-up data collection
HST = High school transcripts
M = Maintenance of address date
PAR = Survey of parents
PST = Postsecondary education transcripts
SFA = Student financial aid records
T = Cognitive test administration

NELS:88 = National Education Longitudinal Study of 1988
BY = Base year data collection
BY1 = Base Year Ineligible Study
FSES = Followback Study of Excluded Students
FU1 = First follow-up data collection
FU2 = Second follow-up data collection
FU3 = Third follow-up data collection
FU4 = Fourth follow-up data collection
HST = High school transcripts
CO = Course offerings
PAR = Survey of parents
SCH = School administrator survey
SES = School effectiveness study
T = Cognitive test administration
TCHR = Survey of teachers

and the effects of schools on students' access to programs and equal opportunity to learn.

The **first follow-up** in 1990 provided the first opportunity for longitudinal measurement of the 1988 baseline sample. It also provided a comparison point to high school sophomores ten years before, as studied in HS&B. The study captured the population of early dropouts (those who leave school between the end of eighth grade and the end of tenth grade), while monitoring the transition of the student population into secondary schooling. Freshening the NELS:88 sample to represent the tenth-grade class of 1990 makes trend comparisons with the HS&B sophomore cohort possible.

The **second follow-up** took place in 1992, when most sample members entered the second term of their senior year. The second follow-up provides a culminating measurement of learning in the course of secondary school, and also collects information that will facilitate investigation of students' transition into the labor force and postsecondary education after high school. The NELS:88 second follow-up resurveyed all students from the eighth-grade cohort, including students who were identified as dropouts in 1990, and identified and surveyed those additional students who left school after the first follow-up. In addition, freshening the NELS:88 sample to represent the twelfth-grade class of 1992 makes trend comparisons with the senior cohorts that were studied in NLS-72 and HS&B possible.[3] In the fall of 1992, high school transcripts were collected for a subsample of students and all dropouts, dropouts in alternative programs, and early graduates.

The **third follow-up** is occurring in 1994, when most sample members are in postsecondary education or in the labor market. The goals of the 1994 round are to provide data for trend comparisons with NLS-72 and HS&B, and to continue cross-wave comparisons with previous NELS:88 rounds. The third follow-up will permit researchers to assess the effect of eighth grade and high school curricular experiences on postsecondary education choice. The third follow-up will provide the means by which access of individuals with different backgrounds to quality educational institutions can be examined. The third follow-up will facilitate study of the influences of high school education experiences on postsecondary education and employment opportunities and choices. Labor force participation, postsecondary persistence, curricular progress, and family formation are further research topics which will be explored by the third follow-up. Additionally, the third follow-up will provide a basis for assessing how many dropouts have returned to school and by what route, and will measure the access of dropouts to vocational training programs and to other postsecondary institutions. A **fourth follow-up** will take place in 1998.

1.6 NELS:88 Second Follow-Up Tapes, CD-ROMs, and Documentation

In addition to the manual accompanying the transcript component restricted use data file, five user's manuals are available for the NELS:88 second follow-up public release files, one to accompany each of the following: student, dropout, teacher, school, and parent. Each manual furnishes the user with general information and documentation both about NELS:88 and a specific public release data file. Although the five user's manuals are written for use with the public release data files, they may also be utilized with the restricted use files. An additional manual is being produced for use with the school effectiveness study restricted use data files.

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[3] The process referred to here as "freshening" added students who were not in the base year sampling frame, either because they were not in the country or because they were not in eighth grade in the spring term of 1988. The 1990 freshening process provided a representative sample of students enrolled in tenth grade in the spring of 1990. The 1992 freshening process provided a representative sample of students enrolled in twelfth grade in the spring of 1992. Section 3.1 provides a detailed description of the freshening process.

The second follow-up magnetic tapes and CD-ROM comprise all components of the second follow-up survey, as well as updated base year and first follow-up files. The cognitive test scores have been rescaled for the second follow-up release of the base year, first follow-up, and second follow-up files, and the ECB features windows with both weighted as well as unweighted frequencies and percentages. A user's guide is available for the ECB and CD-ROM products.

Other second follow-up restricted data files, such as the high school transcript survey, the school effectiveness study (SES), and the early graduate supplement, also appear on CD-ROM but not in the ECB format. These files can be downloaded to floppy diskette or hard drive on a PC, and/or uploaded to mainframe or other machines. The files can be converted to systems files for use with standard statistical software packages. Chapter VI contains additional information on the magnetic tape and CD-ROM releases.

Additional forms of second follow-up documentation, including an in-depth assessment of sampling and non-sampling error, the sampling design, the psychometric properties of the cognitive tests, and various analysis reports are planned. These reports, and their estimated release dates, are listed in Appendix P.

II. Transcript Survey Data Collection Materials and Procedures

This chapter provides a brief description of the transcript survey data collection materials and procedures. (Detailed information about the instruments and procedures for the student and dropout components of the second follow-up is included in Appendix N.) The development of materials and procedures was informed by the 1982 High School and Beyond Transcript Survey and a field test of the transcript component conducted in 1991 as part of the NELS:88 second follow-up field test.

2.1 Data Collection Materials

Data collection materials, mailed to principals in August 1992, guided school personnel in the preparation of transcripts and related documents. Specific information requested in these materials included:

Student-level information

- Number of absences per year or term
- Rank in class and class size
- Date student left school
- Participation in special programs
- Reason student left school (graduated, transferred, etc.)
- Cumulative GPA
- Standardized test scores for the PSAT, SAT, ACT, College Board Achievement tests, and Advanced Placement tests

Course-taking histories for grades 9 (or 10) through 12, including:[1]

- Course title
- Year, grade level, and term course taken
- Number of credits earned
- Grade assigned

Data collection materials, which appear in Appendix B, included:

- **Cover letter.** Two different cover letters--for schools participating in the student survey, and for those not participating in the survey--were employed.

- **Transcript Preparation Instructions.** This sheet gave the preparer instructions on what data elements to include on the transcripts, how to complete the Transcripts Cover Sheet,

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[1] Although 13.5 percent of the contextual students for whom school administrator data were collected attended schools spanning only grades 10 through 12, grade 9 course data were generally collected regardless of the specific grade span of schools.

Program Identification Sheet, and Student Checklist, and how to request reimbursement for preparation expenses.

- **Student Checklist.** The NORC identification numbers, names, birthdates, withdrawal dates (for dropouts), and enrollment status of the sample members associated with the school were listed on this form. Transcript preparers were asked to note transfer schools and their addresses on this form, if applicable.

- **Student Program Identification Sheet.** The transcript preparer used this form to identify sample members who had been enrolled in a special education, bilingual education, or gifted program or course at any time during high school.

- **Transcripts Cover Sheet.** The transcript preparer recorded the school's grading scale on this sheet, and identified requested data elements that were not available from the school, such as class rank or student attendance histories.

- **Disclosure Notices.** Federal regulations required that school staff place a copy of a disclosure notice in the school file of each sample member whose transcript was released to the NELS:88 second follow-up.

- **Transcript Release Forms.** Sample members were asked to sign a transcript release form at the time they were surveyed. These forms were included in the packets mailed to schools not participating in the second follow-up student survey, to encourage school participation in the transcript study; release forms demonstrated the students' participation in the student survey and their willingness to release transcript data to project personnel.

2.2 Data Collection Procedures

The groundwork for the collection of high school transcripts was laid in the spring and fall of 1991, during pre-data collection activities for the second follow-up. At that time, the principals of schools selected for contextual data collection were apprised of the study's intent to collect transcripts in the fall of 1992 for all sample members associated with the school, and school participation in the transcript survey was sought. Principals were asked to provide any materials--such as course catalogs, student manuals or handbooks, course lists, and registration forms--that would aid transcript course coding.

In mid-August 1992, survey materials were mailed to 1,374 contextual schools and 468 noncontextual schools attended by sample members who were high school dropouts, alternative completers, or early graduates. Transcripts for 19,320 contextual students, 2,859 dropouts and alternative completers, and 93 early graduates not enrolled in contextual schools were requested. Transcripts were also requested for 93 students who were ineligible to participate in the base year, first follow-up, and second follow-up student surveys because of physical or mental disability or a language barrier and who were enrolled in the twelfth grade at the time of the second follow-up. Transcripts were not requested for eligible sample members who refused during the student or dropout survey to sign forms granting permission for the release of transcripts. Transcripts were requested for sample members who did not sign transcript release forms, but who had not explicitly refused to grant permission. The student refusal rate was very low, only 0.3 percent. Signed release forms were obtained for 86.5 percent of the students and early graduates eligible for the transcript component, and 45.5 percent of the dropouts/alternative completers. The high proportion of missing release forms for dropouts may be attributable to the disproportionate number of dropouts surveyed by telephone and to sample member disengagement from school.

Telephone follow-up of nonresponding schools was begun at the end of September, six weeks after survey packets had been mailed. Both contextual schools and noncontextual schools were prompted to return transcripts. Nonresponding schools contacted during telephone prompting frequently requested remailing of the data collection materials. Despite assurances that Federal regulations permitted the release of transcripts to the study without student or parental permission, many schools (approximately 50 percent) requesting a second set of materials also requested copies of transcript release forms. School staff appeared to be particularly reluctant to release the transcripts of dropouts without permission.

Telephone follow-up continued through March 1993. Additional measures were implemented during this period to ensure an adequate completion rate for dropouts and alternative completers. Collection of transcripts for these sample members was hampered by incorrect school information reported by dropouts in the second follow-up dropout questionnaire, the frequency with which sample members transferred schools and dropped in and out of school, and inaccurate school records. School staff frequently reported, contrary to study records, that dropouts had never been enrolled in their schools, or reported that records had been archived or forwarded to another school and were not retrievable. Dropouts occasionally were enrolled in a school for too brief a period to accumulate a course-taking record, and came and left with little or no record of their origin or destination. In February, a survey packet was mailed to responding and nonresponding schools from which dropout and alternative completer transcripts had not been received. Packet materials emphasized the importance of collecting transcripts for school-leavers and provided withdrawal dates from the second follow-up dropout questionnaire to assist in record recovery. An additional round of prompting calls was made to the schools after the mailing of the packets.

2.3 Data Collection Results

A total of 1,287 contextual schools and 256 noncontextual schools responded to the request for transcripts. Reasons cited by school staff for not complying with the request included: inadequate permission for transcript release (some schools required parental permission for the release of minors' transcripts); no record of the sample member, or no course-taking record because of brevity of enrollment; insufficient staff for transcript preparation (despite offers of remuneration for preparation costs); and archiving or transfer of sample member records. Final school completion rates are shown in Table 2.3-1. Student-level coverage rates are shown in Table 2.3-2, and coverage rates for the second follow-up panels and the twelfth-grade cross-sectional cohort appear in Table 2.3-3. (See Tables 3.7-1 and 3.7-2 in Appendix N for completion and coverage rates for the student, dropout, parent, school administrator, and teacher components.)

Table 2.3-1 NELS:88 second follow-up: Transcript survey participation rates for contextual schools, by school type, urbanicity, and region

	Participating (%)	Nonresponding (%)	Total (%)
School Type			
Public	1,078 (94.2)	66 (05.8)	1,144 (83.3)
Catholic	98 (94.2)	6 (05.8)	104 (07.6)
NAIS, Private	75 (93.7)	5 (06.3)	80 (05.8)
Other Private	36 (78.3)	10 (21.7)	46 (03.3)
			1,374 (100.0)
Urbanicity			
Urban	461 (92.2)	39 (07.8)	500 (36.4)
Suburban	484 (94.2)	30 (05.8)	514 (37.4)
Rural	342 (95.0)	18 (05.0)	360 (26.2)
			1,374 (100.0)
Region			
Northeast	252 (89.0)	31 (11.0)	283 (20.6)
South	445 (92.9)	34 (07.1)	479 (34.9)
Midwest	305 (96.2)	12 (03.8)	317 (23.1)
West	285 (96.6)	10 (03.4)	295 (21.5)
			1,374 (100.0)
Total	1,287 (93.7)	87 (6.3)	1,374 (100.0)

Table 2.3-2 NELS:88 second follow-up: Transcript coverage rates by sample eligibility

	Total Transcript Survey Sample Coverage Rates[c]		Contextual Student Sample[a] Coverage Rates[c]		Dropout/Alternative Completer Sample[b] Coverage Rates[c]	
	Weighted	**Unweighted**	**Weighted**	**Unweighted**	**Weighted**	**Unweighted**
Total	87.8	89.5	92.0	92.5	69.9	74.2
Participated	17,285		15,091		2,120	
Selected	19,320[d]		16,315		2,859	
Sex						
Male	88.5	89.7	92.5	92.7	71.6	75.3
Female	87.2	89.2	91.4	92.3	68.1	72.9
Ethnicity						
Asian/PI	91.4	91.8	94.2	94.2	74.8	69.5
Hispanic	83.1	85.2	88.8	90.3	66.1	70.0
Black	79.9	83.8	87.1	89.4	58.2	66.5
White	90.5	91.3	93.2	93.2	76.6	79.5
Am. Indian	81.7	86.4	95.8	94.2	60.8	71.0
Refused/Missing	56.8	66.7	71.2	78.1	39.4	49.2
School type[e]						
Public	NA[f]	NA	92.4	92.6	NA	NA
Catholic	NA	NA	92.7	93.0	NA	NA
NAIS, Private	NA	NA	91.3	94.5	NA	NA
Other Private	NA	NA	78.9	79.4	NA	NA
Urbanicity[e]						
Urban	NA	NA	87.3	90.8	NA	NA
Suburban	NA	NA	93.1	92.2	NA	NA
Rural	NA	NA	94.7	94.5	NA	NA
Region[e]						
Northeast	NA	NA	86.8	88.2	NA	NA
South	NA	NA	90.5	91.0	NA	NA
Midwest	NA	NA	95.7	96.1	NA	NA
West	NA	NA	95.1	94.8	NA	NA

[a] The contextual sample includes early graduates enrolled in the second follow-up in schools selected for the contextual surveys.

[b] The dropout/alternative completer sample includes sample members with real and imputed (for weighting) dropout/alternative completer enrollment status.

[c] The transcript coverage rates presented in this table are independent of questionnaire completion.

[d] 93 triple ineligibles and 53 early graduates not enrolled in contextual schools were selected for the transcript component, in addition to contextual students and dropouts/alternative completers.

[e] Refers to 12th-grade school.

[f] Not applicable -- Completion rates by school type, urbanicity, and region are calculated based on the school a student attended in the second follow-up. Because dropouts are included in the total transcript survey coverage rate but are not linked to schools on the public use magnetic tape, it is not possible to calculate overall coverage rates for these subgroups.

Table 2.3-3 NELS:88 second follow-up: Transcript coverage rates for second follow-up panels and 12th-grade cross-sectional cohort participants

	Base Year to Second Follow-Up Panel[a]		First to Second Follow-Up 10th-Grade Panel[b]		12th-Grade Cross-Sectional Cohort Participants[c]	
	Coverage Rates		Coverage Rates		Coverage Rates	
	Weighted (F2PNLWT)	Unweighted	Weighted (F2F1PNWT)	Unweighted	Weighted (F2QWT)	Unweighted
Total	80.9	86.6	82.4	87.3	81.8	87.3
Participated	14,283		14,625		14,315	
Selected	16,489		16,749		16,399	
Sex						
Male	82.7	87.4	83.7	88.0	82.9	87.8
Female	79.1	85.9	81.2	86.6	80.7	86.8
Ethnicity						
Asian/PI	88.0	90.0	84.5	88.2	82.3	87.3
Hispanic	78.6	83.7	78.6	84.3	78.4	84.6
Black	70.5	80.8	76.0	82.0	74.9	83.3
White	83.2	87.8	84.2	88.6	83.6	88.5
Am. Indian	68.7	76.4	75.7	81.3	76.6	81.3
Refused/Missing[d]	48.1	77.8	49.5	75.0	48.6	63.0
School type[e]						
Public	81.7	86.7	84.6	88.2	83.4	87.6
Catholic	76.1	85.5	73.4	85.1	74.3	86.3
NAIS, Private	85.2	89.9	81.3	90.4	81.0	92.6
Other Private	71.5	80.4	61.2	74.7	56.8	71.4
Urbanicity[e]						
Urban	71.6	83.8	75.6	84.7	74.4	85.3
Suburban	82.6	86.3	84.7	87.8	83.5	86.7
Rural	86.4	89.3	88.6	90.8	87.1	90.5
Region[e]						
Northeast	78.0	83.9	81.2	85.2	80.6	84.9
South	78.3	85.0	80.9	86.3	79.4	86.1
Midwest	84.1	89.5	86.9	90.8	85.8	90.8
West	84.2	88.4	84.9	88.9	83.3	87.7

[a] Includes all panel members, regardless of type of F1 or F2 questionnaire completed.

[b] Includes all panel members in the tenth grade in the F1, regardless of type of F1 or F2 questionnaire completed.

[c] Includes members of the spring-defined cohort only.

[d] Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample members who did not participate in the second follow-up.

[e] For BY to F2 panel, refers to 8th-grade school. For F1 to F2 panel, refers to 10th-grade school. For 12th-grade cross-sectional cohort, refers to 12th-grade school.

III. Second Follow-Up Sample Design and Implementation; Survey Error Assessment

This chapter describes the design and procedures used for selecting schools and students into the NELS:88 second follow-up samples, including the transcript survey sample. It provides information on the calculation of sample weights and the relative efficiency of the sample design. The chapter also provides information about procedures used to adjust sample weights for nonresponse and about the effect of unit and item nonresponse and other potential sources of bias on estimates. (See Appendix O for information on the base year and first follow-up sample designs, sampling procedures, and standard errors.)

3.1 Second Follow-Up Sample Design

There were five basic objectives for the NELS:88 second follow-up sample design. **First**, the sample was to constitute a valid probability sample of all students enrolled in the twelfth grade in the 1991-1992 school year. This entailed freshening the sample with students who were twelfth graders in 1992 but were not in the eighth grade in the U.S. in the 1987-88 school year, just as the first follow-up sample had been freshened in 1989 to achieve a 1990-91 representative sample of sophomores. Additionally, it was necessary to reassess the eligibility status of selected students found in previous waves to be ineligible, and to include them in the cohort if they were determined to be eligible for the second follow-up. **Second**, to continue the examination of the dropping out phenomenon, dropouts were to be retained with certainty. **Third**, it was highly desirable for policy analysis purposes to retain the maximum number of Hispanics, Asians, and American Indians from the first follow-up sample. **Fourth**, to minimize nonresponse bias first follow-up nonrespondents were to be retained with certainty. **Fifth**, the sample was to be clustered in 1,500 schools from which contextual data--including school administrator, teacher, and transcript data--would be collected. It was hoped that these goals could be achieved with minimal loss to both sample efficiency and effective sample size.

Longitudinal Cohort. When second follow-up tracing of cohort members was completed, it was found that the first follow-up sample (that is, the sum of base year respondents and nonrespondents retained after first follow-up subsampling and first follow-up freshened students) was much more widely dispersed than had been anticipated. After eliminating the locations of the "known" dropouts[1] (N=1,564) from consideration (dropouts were sampled with certainty), the remaining eligible sample of students (N=18,726) was dispersed among 3,224 schools/locations.[2]

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[1] In the second follow-up, dropouts were defined differently for sampling purposes than for data collection purposes. (See the *NELS:88 Second Follow-Up: Dropout Component Data File User's Manual*, section 4.3.1 for further details regarding the definition of dropouts for data collection and questionnaire assignment.) For sampling purposes, dropouts comprised all individuals who were classified in the first follow-up as ever having dropped out--that is, dropouts (individuals who were not enrolled in school in the spring term of 1990) and stopouts (spring term 1990 students with a recorded 1988-1990 dropout episode), regardless of their school enrollment status as of the second follow-up spring term 1991 tracing effort. In other words, dropouts who had since returned to school and stopouts who remained in school were still counted as dropouts for sampling purposes, along with institutionalized individuals and the additional dropouts identified during second follow-up tracing. Some dropouts for sampling purposes who were out of school after tracing returned to school and were interviewed as spring term 1992 students.

[2] Including dropouts, there were 4,788 locations. Once non-school locations associated with dropouts, early graduates, institutionalized sample members, home study students, and unlocatables were subtracted from the total, there were 2,258 school sites. Of these, 1,008 had a cluster of one student,

It was clear that even if no attempt were made to satisfy the second goal--retention with near certainty of Hispanics, Asians, and American Indians from the first follow-up sample--that the fifth goal of achieving a cluster of students in 1,500 schools could not be met without significant losses in sample efficiency, effective sample size, or both. Table 3.1.3-1 shows the distribution of students eligible for second follow-up sampling (excluding dropouts) by school size, as well as the number of schools with at least one sample member who was either Hispanic, Asian, or American Indian. Of the schools in which second follow-up sample members were clustered, 160 schools had a cluster size of two, 60 had a cluster size of three, and 1,030 had a cluster size of four or more students. The data in the table indicated that to achieve disproportionate retention of minority students most of the schools containing these students would have to be selected, leaving few additional sample selections to distribute among the remaining school sites and contradicting the initial sampling plan to include with certainty any school with at least five NELS:88 sample members enrolled at the school.

After consideration of several alternative allocations--taking into account the negative effects of subsampling on sample efficiency, the strong desire to retain as many Hispanics, Asians, and American Indians as possible, and the substantial investment made in two prior rounds in obtaining student, parent, teacher, and school data for those students who would have been subsampled out--it was decided to include all first follow-up sample members in the second follow-up sample.

Table 3.1.3-1 Clustering of first follow-up sample members eligible for second follow-up (schools [*N*=2,258] and non-school locations)

School Size	Total Schools	Total Schools With API,HIS,AI	Total Schools Without
1	1974	579	1395
2	160	70	90
3	60	25	35
4	53	35	18
5	38	14	24
6	26	17	9
7	27	17	10
8	33	20	13
9	21	10	11
10	36	22	14
11	43	31	12
12	35	20	15
13	47	37	10
14	51	35	16
15	57	41	16
16	53	37	16
17	82	48	34
18	72	48	24

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160 had a cluster size of two, 60 had a cluster size of three, and 1,030 had a cluster size of four or more students.

Table 3.1.3-1 (cont'd) Clustering of first follow-up sample members eligible for second follow-up (schools [*N*=2,258] and non-school locations)

19	77	58	19
20	65	43	22
21	55	43	12
22	40	31	9
23	32	27	5
24	22	21	1
25	13	12	1
26	6	6	0
27	6	5	1
28	5	3	2
29	7	6	1
30	4	2	2
31	5	5	0
32	2	1	1
33	1	1	0
34	1	1	0
35	2	2	0
36	3	3	0
37	1	1	0
38	1	0	1
40	1	1	0
41	2	1	1
44	1	0	1
45	1	1	0
50	1	1	0
53	1	1	0
60	1	1	0
Total	3224	1383	1841

Note: known school-leavers are not included in the numbers above.

Teacher, school administrator, and student transcript components were limited to a maximum of 1,500 schools. For this reason it was still necessary to select a sample of schools, although the students falling outside that sample would not be excluded from the study. For students in the 1,500 schools selected, the full range of data--student, parent, teacher, school administrator, and transcript data--were collected; for the students in a school not among those selected, only student and parent data were collected. Transcript data were also collected for all dropouts, early graduates, and twelfth-grade sample members ineligible for the base year, first follow-up, and second follow-up surveys owing to a language, physical, or mental barrier.

A total of 2,258 schools were identified in the second follow-up tracing of the NELS:88 first follow-up sample; 1,500 of these were targeted for contextual data collection. All 1,030 schools identified as having four or more first follow-up sample members enrolled were included in the school-level sample with certainty (i.e., probability of 1.0). Schools with three or fewer students were subjected to sampling according to the following process. A random sample of 321 of the 1,008 (probability= 0.31845) schools identified as containing one first follow-up sample member was selected for retention in the sample. A random sample of 104 of the 160 (probability=0.65) schools containing two first follow-up sample members was selected for retention. Finally, a random sample of 45 of the 60 (probability=0.75) schools containing three sample members was selected. Figure 3-1 provides an illustration of the longitudinal sample design of the base year and first follow-up, as well as that of the second follow-up.

Users should note that school-level data from this sample of schools, to be used in analysis with second follow-up student data, must be adjusted with a weight calculated separately for these students. If that weight is not applied, there will be a potential for systematic bias with respect to those factors associated with attendance at schools with fewer NELS:88 students. For example, students who are more likely to transfer to different schools will be under-represented if the weight is not applied. Further details can be found in section 3.2 on second follow-up weighting.

Freshened Senior Sample. The sample "freshening" process was once again employed in the second follow-up to ensure that 1992 twelfth graders who had no opportunity for selection in the base year or first follow-up were included, thus eliminating one of two obstacles to the cohort being a valid probability sample of 1991-1992 high school seniors. (The second obstacle was the prior exclusion of some 1988 eighth graders, which is addressed in the next section.) The procedure was implemented in four steps as described in Appendix O, section 2.1.2, with the exception that second follow-up freshening was also performed for students who were added to the NELS:88 cohort through freshening in the first follow-up; in other words, a first follow-up freshened student was treated like any cohort member and could bring in another student through freshening in the second follow-up.

This freshening procedure is an essentially unbiased method for producing a probability sample of students who were enrolled in the twelfth grade in 1992 but were not enrolled in the eighth grade in the U.S. in 1988. There is a very small bias introduced by the omission of eligible twelfth graders attending schools that included *no* students who were eighth graders in 1988.[3] There is an additional small bias introduced by not freshening on the members of the sample of base year ineligibles. All other 1992 twelfth graders who qualify for the freshening sample had some chance of selection. Because each 1988 eighth grader added through first follow-up freshening had a calculable, non-zero probability of selection into the base year sample, we can calculate the selection probabilities for all students eligible for the freshening sample. Thus, the freshening procedure produces a sample that meets the criterion for a probability sample.

Implementation of student sample freshening in the first and second follow-ups was subject to a set of eligibility rules that were patterned after but not identical to those of the base year. While again students with overwhelming physical, mental, or linguistic barriers to participation were excluded, students not sufficiently proficient in English to complete the tests or regular questionnaire but able to complete the student questionnaire in Spanish were classified as eligible and asked to complete the

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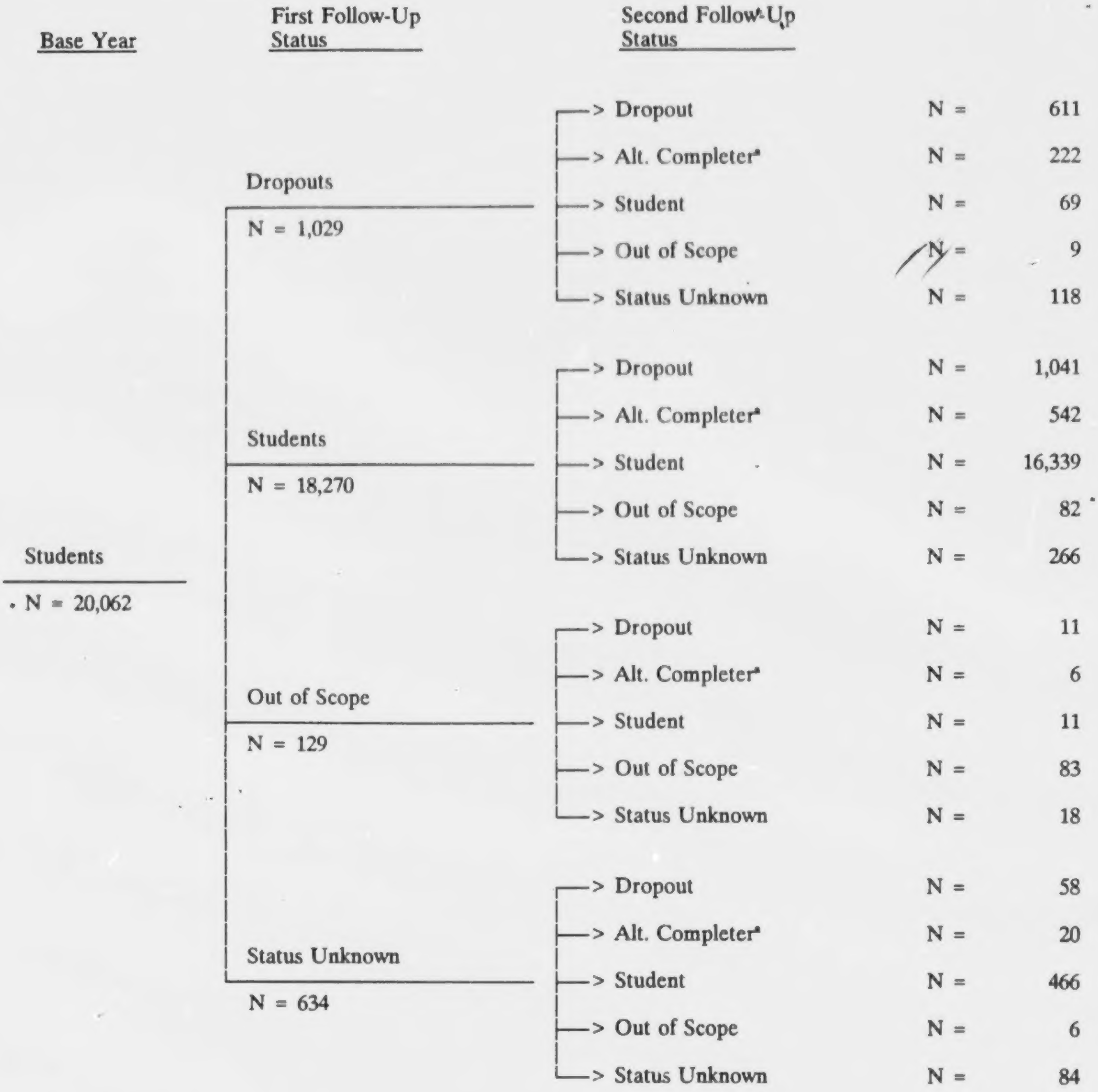
[3] For purposes of implementation of the freshening process, a "school" was defined was an institution whose primary purpose is the provision of instruction and which grants diplomas or certificates. This definition categorically excludes certain types of places of instruction (e.g., prison schools).

Figure 3-1: NELS:88 8th-grade spring defined cohort status distribution in first and second follow-ups


Base Year
First Follow-Up Status
Second Follow-Up Status
Students
N = 20,062
Dropouts
N = 1,029
Dropout N = 611
Alt. Completer* N = 222
Student N = 69
Out of Scope N = 9
Status Unknown N = 118
Students
N = 18,270
Dropout N = 1,041
Alt. Completer* N = 542
Student N = 16,339
Out of Scope N = 82
Status Unknown N = 266
Out of Scope
N = 129
Dropout N = 11
Alt. Completer* N = 6
Student N = 11
Out of Scope N = 83
Status Unknown N = 18
Status Unknown
N = 634
Dropout N = 58
Alt. Completer* N = 20
Student N = 466
Out of Scope N = 6
Status Unknown N = 84

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*Alt. Completer = Alternative Completer or Alternative Student

Note: In addition to the 20,062 sample members listed above, an additional 1,126 sample members were added due to sample freshening. Thus, 20,062 and 1,126 equals the 21,188 cases found on the second follow-up student public use data file.

translated instrument. (Through the first follow-up base year ineligibles study and second follow-up followback study of excluded students, this liberalized eligibility criterion was also applied to excluded 1987-88 eighth graders at two points in time.) Of the 366 students initially sampled through the freshened process, 288 were found to be eligible and were brought into the cohort; 266 of the 288 were identified as being eligible to participate in the second follow-up. Some 22 of the 266 (8.3%) were later determined to be ineligible; 8 were excluded owing to physical or mental disabilities, 13 because they had moved out of the country, and 1 for language reasons.

It also should be noted that the school sample from which school contextual data (teacher questionnaires, school administrator questionnaires, and transcripts) were collected is not identical to the school sample as used for freshening. Freshening took place at all schools at which there were NELS:88 sample members **as of the first day of the 1991-92 school year**.[4] The school sample, for purposes of collecting contextual data, comprised the 1,387 schools that represent selected clusters (as traced in Phase 1 of the second follow-up) at which 1) NELS:88 sample members were still present in the 1991-92 school year, and 2) provided at least one completed student questionnaire.

Followback Study of Excluded Students. In the second follow-up, base year ineligibles who were found to be eligible in the first follow-up--whether dropouts or students--were treated as full cohort members. The base year ineligibles who were found to be still ineligible in the first follow-up constituted the bulk of the sample in the 1992 followback study of excluded students. Two additional groups of students, however, were also included in this component. First, a small number of first follow-up students selected for freshening were declared ineligible and were therefore included. Second, a quite small number of sample members who were eligible for participation in the base year became ineligible for the first follow-up or the second follow-up. These sample members eligible in a previous round(s) were a generally rare group to whom mentally or physically incapacitating events occurred, rendering them ineligible for the second follow-up main study but now eligible for the study of ineligibles.

The second follow-up followback study of excluded students pursued essentially the same objectives as informed the first follow-up base year ineligible study. Since the competence of any of these previously excluded students may change between waves, their eligibility status was reassessed through informed sources (typically, a special education teacher, guidance counsellor, or English-as-a-Second-Language teacher). Additionally, complete school enrollment status information was obtained, as well as confirmation of basic demographic characteristics.

This approach implemented in the first and second follow-ups allows for some deviance from the traditional definition of survey participation and a special weight creation to calculate dropout rates adjusted for ineligibility. The HS&B and NELS:88 base year definition of survey participation was, at minimum, completion of the student questionnaire. Nonrespondents, or those for whom there is no completed questionnaire in a round, receive no final (nonresponse-adjusted) weight and do not appear in the final data file, except for summary demographics and status flags.

The alternative approach is to acknowledge a second level of presence in the study, based on whether school enrollment status information and the most basic sociodemographic classification variables can be obtained. Particularly for the generation of school retention and dropout statistics, and in order to statistically accommodate students who are incapable of participation in the most strict sense of questionnaire and test completion (and those who are capable but did not participate) basic sociodemographic and school persistence information has been collected through school personnel or by proxy (usually a parent or guardian) for both nonparticipants and ineligibles. A special weight has been created to reflect this expanded definition of the "participating" population and can be applied to calculate, for example, adjusted national dropout rates for the periods between eighth, tenth and twelfth grades.

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[4] Only those freshened sample members who remained in school through the spring term became members of the HS&B-comparable NELS:88 sophomore cohort. However, autumn sophomores who had dropped out by spring were surveyed in both first and second follow-up. While these "freshened dropouts" were included on the original first follow-up public release, in the current re-release these cases appear only on the restricted use files.

Transcript Survey Sample. Transcripts were collected for the following groups, regardless of whether they completed a second follow-up questionnaire:

1. students attending one of the second follow-up contextual schools in the spring of 1992;
2. all dropouts and dropouts in alternative programs who had attended high school for a minimum of one term;
3. all early graduates, regardless of whether they attended one of the second follow-up contextual schools; and
4. triple ineligibles enrolled in the twelfth grade in the spring of 1992, regardless of whether they were enrolled in a contextual school. (The 1987 and 1990 NAEP transcript studies of seniors collected transcripts for both NAEP-eligible and excluded special education students.)[5]

The section below details the generalizability of the transcript sample when employed with the transcript cross-sectional and panel weights.

3.2 Calculation of Second Follow-Up Weights

The general purpose of weighting survey data is to compensate for unequal probabilities of selection and to adjust for the effects of nonresponse. Weights are often calculated in two main steps. In the first step, unadjusted weights are calculated as the inverse of the probabilities of selection, taking into account all stages of the sample selection process. In the second step, these initial weights are adjusted to compensate for nonresponse; such nonresponse adjustments are typically carried out separately within multiple weighting cells. This is the process that was applied to weighting NELS:88 data in all rounds. The calculation of second follow-up sample weights is discussed below. Information on the calculation of base year and first follow-up sample weights is included in Appendix O.

Explanation of Weights. Eight weights were developed for inclusion on the data files. They include:

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[5] Triple ineligibles are sample members who were ineligible for the base year, first follow-up, and second follow-up surveys owing to mental or physical disability, or a language barrier. Base year ineligibles who had become eligible in the second follow-up had a chance of selection into the transcript sample. Some members of this group were 1992 seniors. This resulted in the collection of transcripts for base year ineligibles with complete high school transcripts. (That is, they were 1992 seniors regardless of their 1992 eligibility status.)

F2TRSCWT	This cross-sectional weight applies to all early graduates, dropouts, students in sampled schools during spring data collection, and all sample members who were both ineligible for all three rounds of NELS:88 and were in the twelfth grade during the 1991-92 school year for whom a transcript was received.
F2TRP1WT	This panel weight applies to sample members who were participants in 1988, 1990, and 1992 (all three rounds of NELS:88) and for whom transcript data are available. F2TRP1WT allows analysts to perform panel analyses using transcript data in conjunction with 1988, 1990, and 1992 test and questionnaire data.
F2TRP2WT	This panel weight applies to sample members who were participants in 1990 and 1992 (the first and second follow-up) and for whom transcript data are available. F2TRP2WT allows analysts to perform panel analyses using transcript data in conjunction with 1990-1992 test and questionnaire data. By selecting on the appropriate panel flag, projections can be made to the 1990 sophomore cohort two years later.
F2QWT	This cross-sectional weight applies to all members of the second follow-up sample who completed a second follow-up questionnaire, regardless of their participation status in previous rounds. It allows projections to the population consisting of all persons who were either in the eighth grade during the 1987-88 school year or in the tenth grade during the 1989-90 school year, or in the twelfth grade in the 1991-92 school year. By selecting the appropriate sample members with flag G12COHRT, analysts can use F2QWT to make unbiased projections to such populations as 1992 twelfth graders.
F2PNLWT	This panel weight applies to sample members who completed a questionnaire in all three rounds of NELS:88. This can be used to make projections to the population of 1988 eighth graders.
F2F1PNWT	This panel weight applies to all sample members who completed both a first follow-up and a second follow-up questionnaire, regardless of base year status. This allows projections to the population consisting of persons who were in the eighth grade in 1988 or in the tenth grade in 1990. By selecting appropriate sample members with flag F2F1PNFL, analysts can use F2F1PNWT to make projections to such populations as 1990 tenth graders.
F2CXTWT	This cross-sectional weight applies to students who attended the schools selected for inclusion in the teacher and school administrator components and who completed a second follow-up questionnaire. The population was restricted to early graduates and students who were in the schools during spring data collection. This weight allows analysts to generate national statistics using the teacher and school administrator data despite the bias against small cluster sizes in sample selection.
F2PAQWT	This cross-sectional weight applies to all students for whom a parent questionnaire was collected during the second follow-up.

Process for calculation of second follow-up weights. A basic four-step process was defined for the calculation of all eight sample weights. The first step, developing a classification scheme, was done at the beginning of the weighting process for all students in the sample. The values remained static and were used throughout the process for all weights. Steps 2 through 4 were followed for all weights, but the results of each were tailored according to the characteristics of each weight's specific population.

Step 1. Develop a classification scheme.

All sample members were divided into basic sample groups depending upon their status during data collection for each of the three rounds of NELS:88. Freshened students were assigned the status of their linked student for those rounds where they had not been in the sample. Students for whom status was unknown had their status imputed based upon the distribution of status across others in their base year, first follow-up or second follow-up categories and, where group size permitted, race and gender were also considered. The eight basic classification categories for a single round are defined as:

1. Eligible, dropout as of survey date
2. Eligible, in school, in expected grade
3. Eligible, in school, not in expected grade
4. Ineligible
    a. in school, in expected grade
    b. in school, not in expected grade
    c. not in school
5. Out of scope (deceased or out of country)
6. Eligible, freshened, dropout as of survey date
7. Eligible, freshened, in school
8. Ineligible, freshened

In this classification scheme, "dropout" (following the High School and Beyond definition) generally refers to a student who has left a diploma-granting high school program. This included members who were not pursuing an education at all, home study students, members who were continuing their education in a non-traditional setting (e.g., preparing for the GED examination), and institutionalized sample members. There are two exceptions to this general rule. First, early graduates were included in the "in school" category. Second, because sample members who attended non-traditional schools during the first follow-up were classified as students then, they were treated as such during the calculation of their first follow-up status.

"Ineligible" refers to members who were not given the questionnaires due to a language barrier or a mental or physical incapacity.

"Expected grade" means tenth grade in the first follow-up and twelfth grade or early graduate in the second follow-up.

Step 2. Establish second follow-up design weight.

The design weight reflects the selection probabilities for each case for a given population. Sample members may have multiple design weights that vary depending upon the weight that is being calculated. For the weights unaffected by school sampling (F2QWT, F2PNLWT, F2F1PNWT) and for the dropouts, early graduates, and ineligible twelfth graders in F2TRSCWT, the design weight used is equal to the first follow-up design weight.[6] Second follow-up freshened students take on the first follow-up design weight of the student they were linked to in the freshening process. When sample members are included due to their association with a sampled school in F2TRSCWT and for all members in the F2CXTWT population, it is equal to the first follow-up design weight divided by their school's second follow-up selection probability. For students represented in the parent sample, the calculation of F2PAQWT uses the first follow-up design weight divided by the parent's second follow-up selection probability.

Step 3. Adjust for second follow-up nonresponse.

Nonresponse adjustment cells were based upon combinations of the classification values from step 1 as well as race (Hispanic, API, other, unknown), and gender for the members of that weight's population. The second follow-up design weight for each responding sample member was inflated by a factor equal to the inverse of the weighted response rate for their cell. This yielded their nonresponse adjusted weight. This step was performed independently for each weight calculated. For second follow-up freshened students the nonresponse adjusted weight serves as their final weight.

Step 4. Perform multidimensional raking.

Sample members who were not freshened in the second follow-up had their second follow-up nonresponse adjusted weight further adjusted through a raking step. The total sum of the weights and percentage distributions that were used in raking were developed as follows:

a) Targets were developed that used the second follow-up expanded sample weight. The second follow-up expanded weight is a weight that was calculated for every sample member in order to estimate national dropout rates.[7] It was used in developing total sum of weights targets to ensure consistency in dropout rates derived when using sample weights. These targets were calculated separately for each of the six sample weights and reflected the characteristics of each weight's inference population. Two types of target numbers were developed. The sum of expanded weights for a given sample weight's inference population was used as the target total population for that sample weight. Weighted frequency distributions using the expanded weights associated with a sample weight's inference population were

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[6] Included on the transcript data files are 52 students who were ineligible in all three rounds of NELS:88 and were seniors in 1992, as described under the subheading "Transcript Survey Sample" in section 3.1.

[7] For sample members not freshened in the second follow-up, the process involved using a multidimensional raking procedure to adjust the second follow-up design weight where the marginal target categories were based on roster race (API, Hispanic, other, unknown) and gender, base year school type, base year school region, base year school urbanicity, and the status values from the classification scheme described above in step 1. Target margins for the expanded weight were calculated using the first follow-up expanded sample weight (a similar weight developed in the first follow-up for estimating the 1988-90 dropout rate) for students for whom one was calculated and first follow-up design weights for the first follow-up sample members who did not receive a first follow-up expanded weight (such as the freshened). Second follow-up freshened students have their second follow-up design weight as their expanded sample weight. This step was performed for the sample as a whole.

Table 3.2-1
NELS:88 second follow-up statistical properties of the transcript sample and panel weights

WEIGHT	F2TRSCWT	F2TRP1WT	F2TRP2WT
Mean	187.09	204.95	201.28
Variance	109,293.20	135,735.87	126,020.98
Standard Deviation	330.59	368.42	354.99
Coefficient of Variation (×100)	176.71	203.00	188.26
Minimum	2.21	2.45	2.47
Maximum	12,532.08	13,753.89	13,440.62
Skewness	17.25	17.68	16.88
Kurtosis	480.52	470.46	441.84
Sum	3,233,775	2,927,223	3,147,076
Number of Cases	17,825	14,282	15,635

calculated for dropout rates between base year and first follow-up, dropout rates between first follow-up and second follow-up, first follow-up status (from step 1) and second follow-up status (from step 1).

b) Additional percentage targets were developed for raking using first follow-up weights. Calculated independently for each of the six weights according to the characteristics of each inference population, these targets used F1QWT for sample members who had been eligible for the first follow-up questionnaire or the first follow-up design weight for those who were not. Weighted frequencies calculated using these weights were used as target distributions. These target categories included race (White, Black, Hispanic, API, American Indian, unknown), gender, base year school region, base year school type, and base year school urbanicity.

Results of weighting. To check the transcript sample case weight, we analyzed the statistical properties of the weight; Table 3.2-1 above displays the mean, variance, standard deviation, coefficient of variation, minimum, maximum, skewness, and kurtosis for the weight. Tables showing results for the remaining five weights can be found in the student (questionnaire and panel weights) data file user's manual, in the forthcoming school (contextual weight) and parent (parent weight) data file user's manuals, and in the *NELS:88 Second Follow-Up Sample Design Report*.

3.3 Standard Errors and Design Effects

In this section we discuss the calculation of standard errors as a measure of sampling variability in survey results; the standard error is an estimate of the expected difference between a statistic from a particular sample and the corresponding population value.

Survey Standard Errors. Because the NELS:88 sample design involved stratification, disproportionate sampling of certain strata, and clustered (i.e. multi-stage) probability sampling, the resulting statistics are more variable than they would have been had they been based on data from a simple random sample of the same size.

The calculation of exact standard errors for survey estimates can be difficult and expensive. Popular statistical analysis packages such as SPSS (Statistical Program for the Social Sciences) or SAS (Statistical Analysis System) do not calculate standard errors by taking into account complex sample designs. Several procedures are available for calculating precise estimates of sampling errors for complex samples. Procedures such as Taylor Series approximations, Balanced Repeated Replication (BRR), and Jackknife Repeated Replication (JRR) produce similar results.[8] Consequently, it is largely a matter of convenience which approach is taken. For NELS:88, NORC used the Taylor Series procedure to calculate the standard errors.

Design Effects. The impact of departures from simple random sampling on the precision of sample estimates is often measured by the design effect (designated as DEFF). For any statistical estimator (for example, a mean or a proportion), the design effect is the ratio of the estimate of the variance of a statistic derived from consideration of the sample design to that obtained from the formula for simple random samples. The square root of the design effect (also called the root design effect, and designated as DEFT) is also useful. The following formulas define the design effects and root design effect for this section:

$$\text{DEFF} = \frac{(\text{DESIGN-SE})^2}{(\text{SRS-SE})^2} \tag{1}$$

$$\text{DEFT} = \frac{\text{DESIGN-SE}}{\text{SRS-SE}} \tag{2}$$

where DESIGN-SE designates the standard error of an estimate calculated by taking into account the complex nature of the survey design, and SRS-SE designates the standard error of the same estimate calculated as if the survey design was a simple random sample.

Second Follow-Up Transcript Standard Errors and Design Effects. Standard errors and design effects were calculated for 30 means and proportions based on the NELS:88 second follow-up student and dropout transcript data.

Selection of Second Follow-Up Transcript Items. While standard errors and design effects have not previously been included in transcript study documentation (neither for HS&B nor either of the NAEP studies), it was considered important to calculate these for the NELS:88 second follow-up transcript study. As in HS&B and other rounds and components of NELS:88, the calculation of SEs and DEFFs for statistics derived from NELS:88 second follow-up transcript data should be based on the means or proportions of 30 variables. The variables were selected for deriving SE/DEFFs for the transcript sample as a whole. Because SEs were not calculated in the past, the identification of transcript variables that were used in previous studies could not be used as a starting point. Rather, the nonresponse was analyzed, and those items with combined unit and item nonresponse rates above the NCES standard of 30 percent were eliminated from the pool of possible items. All remaining items were then divided and constructed into "categorical/ordinal" or "interval level" variables. Next, variables were selected from both categories known to be of interest to analysts; this resulted in the identification of 13 variables. The remaining 17 variables were selected randomly from those remaining in the pool.

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[8] Frankel, M.R., *Inference from Survey Samples: An Empirical Investigation* (Ann Arbor: Institute for Social Research, 1971).

Results. Standard errors and design effects were calculated for each of the items for the sample as a whole and for selected subgroups. The subgroups were based on the respondent's dropout status (students and dropouts), sex (male and female), race/ethnicity (Asian and Pacific Islander, Black, Hispanic, and white), school type (public, Catholic, and other private), socioeconomic status (lowest quartile, middle two quartiles, and highest quartile), and urbanicity (urban, suburban, and rural).

The individual item standard errors, design effects (DEFF) and root design effects (DEFT) for all respondents (students and dropouts) are presented along with summary design effect statistics in Table 3.3-1.

The design effects in the second follow-up transcript data are high. For example, for the statistics calculated for the entire sample, the average design effect is 6.63 (see Table 3.3-2). The corresponding figure for the second follow-up questionnaire data was only 3.59. In a two-stage sample design, such as the one used to select the NELS:88 sample, the design effect mainly reflects two factors--the degree of clustering in the sample and the variability in the case weights. The degree of clustering, in turn, reflects the cluster size (that is, the number of students selected in each school) and the intraclass correlation (that is, the expected correlation between the data for any two students selected from a single school). At least one of the variables of the 30--class size--for which design effects were calculated has an extremely high intraclass correlation; class size should be nearly identical for all students sampled from the same school. This variable has a design effect of 15.89 for the whole sample; it also has the highest design effect for each of the subgroups for which design effects were calculated.

The variability of the transcript weights is also quite high, contributing to the comparatively high design effects (see Table 3.2-1). The variability of the weights is usually measured in terms of the relative variance, or relvariance (see Table 3.3-3); this is the variance of the weights divided by the square of the average weight. Under certain assumptions, the design effect due to unequal weighting is equal to one plus the relvariance of the weights. The impact of unequal weighting multiplies the effects

Table 3.3-1 NELS:88 second follow-up:
Standard errors and design effects, all respondents; full transcript sample (N=17,285)

All Students and Dropouts

Item		Esti-mate	Design S.E.[a]	DEFF	DEFT	N	SRS S.E.[b]
Left school in 1992[c]	F2RDTLYR	0.85	0.01	4.00	2.00	16380	0.003
Left school with standard diploma[d]	F2RREASL	0.76	0.01	7.11	2.67	16939	0.003
HS program: Rigorous Academic	F2RTRPRG	0.15	0.01	5.44	2.33	17285	0.003
Class rank for last year attended[e]	F2RRANK	127.79	3.00	7.85	2.80	13393	1.071
Class size for last year attended	F2RCSIZE	260.96	5.88	16.47	4.06	14149	1.450
Total Carnegie units in English	F2RHEN_C	3.46	0.03	6.02	2.45	17285	0.011
Total CUs in mathematics	F2RHMA_C	2.68	0.03	8.41	2.90	17285	0.010
Total CUs in science	F2RHSC_C	2.47	0.03	7.84	2.80	17285	0.010
Total CUs in social studies	F2RHSO_C	2.94	0.03	6.76	2.60	17285	0.010
Average grade in English	F2RHENG2	6.95	0.04	5.19	2.28	16523	0.018
Average grade in mathematics	F2RHMAG2	7.30	0.05	5.86	2.42	16376	0.019
Average grade in science	F2RHSCG2	7.24	0.04	5.36	2.32	16524	0.019
Average grade in social sciences	F2RHSOG2	6.83	0.04	5.36	2.32	16559	0.019
Total CUs in archit/env design	F2R04_C	0.00	0.00	3.06	1.75	17285	0.000
Total CUs in area/ethnic studies	F2R05_C	0.22	0.01	12.25	3.50	17285	0.004
Total CUs in business/office	F2R07_C	0.88	0.02	4.94	2.22	17285	0.009
Total CUs in health sciences	F2R18_C	0.00	0.00	1.78	1.33	17285	0.000
Total CUs in home economics	F2R19_C	0.00	0.00	5.44	2.33	17285	0.000
Total CUs in parks/recreation	F2R31_C	0.00	0.00	4.00	2.00	17285	0.000
Total CUs in philosophy/religion	F2R38_C	0.19	0.02	10.03	3.17	17285	0.006
Total CUs in theology	F2R39_C	0.01	0.01	6.25	2.50	17285	0.002
Total CUs in mechanics/repairs	F2R47_C	0.15	0.01	3.36	1.83	17285	0.006
Total CUs in subject area services	F2R56_C	0.14	0.01	2.78	1.67	17285	0.006
Total CUs in earth sciences	F2REAR_C	0.19	0.01	11.11	3.33	17285	0.003
Total CUs in foreign languages	F2RFOR_C	1.37	0.03	8.46	2.91	17285	0.011
Total CUs in history	F2RHIS_C	1.70	0.02	9.00	3.00	17285	0.007
Total CUs in mathematics	F2RMAT_C	2.76	0.03	8.35	2.89	17285	0.009
Total CUs in other math courses	F2ROMA_C	0.56	0.02	7.11	2.67	17285	0.006
Total CUs in physics	F2RPHY_C	0.20	0.01	9.00	3.00	17285	0.003
Total CUs in agriculture	F2RVAG_C	0.13	0.01	4.00	2.00	17285	0.005
Mean				6.75	2.53		
Minimum				1.78	1.33		
Maximum				16.47	4.06		
Standard Deviation				3.05	0.57		
Median				6.50	2.55		

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[a] Standard error calculated taking into account the sample design.

[b] Standard error calculated under assumptions of simple random sampling.

[c] As a result of inconsistency resolution nine cases in the data file were coded into this category after the calculation of standard errors/design effects, and one case not in the category was recoded as missing.

[d] As a result of inconsistency resolution fourteen cases in the data file moved out of this category after the calculation of standard errors/design effects, and three additional cases in the category were recoded as missing.

[e] The effective response rate (weighted unit response times weighted item response) for class rank is 66.4 percent. This is lower than the NCES standard of 70 percent for analytic reports, and suggests that the estimate should be interpreted with caution.

Table 3.3-2 NELS:88 second follow-up: Mean design effects (DEFFs) and root design effects (DEFTs) for transcript data--full sample (*N*=17,285)

Group	Mean DEFF	Mean DEFT
All Respondents	6.75	2.53
Students	7.15	2.61
Dropouts	2.39	1.51
Male[a]	5.43	2.24
Female	4.90	2.14
White	6.92	2.54
Black	4.31	2.02
Hispanic	4.24	1.99
Asian/Pacific Islander	5.20	2.17
American Indian/ Alaskan Native	3.41	1.75
Public schools	6.26	2.39
Catholic schools	5.73	2.33
Other private schools	21.66	4.36
Low SES	3.54	1.81
Middle SES	4.35	2.01
High SES	6.69	2.48
Urban	7.01	2.52
Suburban	6.95	2.53
Rural	7.30	2.57

[a] Sex categories are based on the composite sex variable.

Note: Each mean is based on 30 items.

Table 3.3-3 NELS:88 second follow-up: Coefficients of variation and relvariance of transcript sample case weights by subgroup–full sample (*N*=17,285)

Group	Coefficient of Variation	Relvariance
Students	1.8703	3.4980
Dropouts	1.1797	1.3918
Male[a]	1.8937	3.5862
Female	1.6444	2.7041
White	1.7520	3.0694
Black	1.8139	3.2904
Hispanic	1.5828	2.5052
Asian/Pacific Islander	1.8024	3.2487
American Indian/ Alaskan Native	1.5005	2.2515
Public schools	1.7199	2.9582
Catholic schools	1.4199	2.0160
Other private schools	5.8955	34.7571
Low SES	1.5120	2.2861
Middle SES	1.7255	2.9773
High SES	2.4023	5.7712
Urban	2.1509	4.6262
Suburban	2.0045	4.0178
Rural	1.3462	1.8123

[a] Sex categories are based on the composite sex variable.

of clustering. For the whole sample, the relvariance of the transcript weights is 3.12 (leading to an expected design effect due to unequal weighting of more than 4). Many of the differences across subgroups in the average design effect appear to reflect differences in the variability of the weights. For example, the average design effect is 8.73 for estimates from students and dropouts from other private schools versus 6.46 for estimates from public schools and 5.25 for estimates from Catholic schools. The relvariances of the weights were 34.75 for the other private school cases, 2.96 for cases from public schools, and 2.01 for cases from Catholic schools. The relvariance of the weights for other private schools is high because of the relatively small number of such schools selected for the transcript study and the lower rate of participation by these schools in the study.

Design Effects and Approximate Standard Errors. Researchers who do not have access to software for computing accurate estimates of standard errors can use the mean design effects presented in Table 3.3-2 to approximate the standard errors of statistics based on the NELS:88 second follow-up transcript data. Design-corrected standard errors for a proportion can be estimated from the standard error computed using the formula for the standard error of a proportion based on a simple random sample and the appropriate mean root design effect (DEFT):

$$SE = DEFT \times (p(1-p)/n)^{1/2} \qquad (1)$$

where p is the weighted proportion of respondents giving a particular response, n is the size of the sample, and DEFT is the mean root design effect.

Similarly, the standard error of a mean can be estimated from the weighted variance of the individual scores and the appropriate mean DEFT:

$$SE = DEFT \times (Var/n)^{1/2} \qquad (2)$$

where Var is the sample variance, n is the size of the sample, and DEFT is the mean root design effect.

The design effect table presented in the preceding section make it clear that the design effects and root design effects vary considerably by subgroup. It is therefore important to use the mean DEFT for the relevant subgroup in calculating approximate standard errors for subgroup statistics.

Standard error estimates may be needed for subgroups that are not tabulated here. One rule of thumb may be useful in such situations: design effects will generally be smaller for groups that are formed by subdividing the subgroups listed. (This is because smaller subgroups will generally be less affected by clustering than larger subgroups.) Estimates for Hispanic males, for example, will generally have smaller design effects than the corresponding estimates for all Hispanics or all males. For this reason, it will usually be conservative to use the subgroup mean DEFT to approximate standard errors for estimates concerning a portion of the subgroup. This rule applies only when the variable used to subdivide a subgroup crosscuts schools. Sex is one such variable, since most schools include students of both sexes. It will not reduce the average cluster size to form groups that are based on subsets of *schools*.

Standard errors may also be needed for other types of estimates than the simple means and proportions that are the basis for the results presented here. A second rule of thumb can be used to estimate approximate standard errors for comparisons between subgroups. If the subgroups crosscut schools, then the design effect for the difference between the subgroup means will be somewhat smaller than the design effect for the individual means; consequently, the variance of the difference estimate will be less than the sum of the variances of the two subgroup means from which it is derived:

$$Var(b-a) < Var(b) + Var(a) \qquad (3)$$

in which Var(b−a) refers to the variance of the estimated difference between the subgroup means, and Var(a) and Var(b) refer to the variances of the two subgroup means. It follows from equation (3) that Var(a) + Var(b) can be used in place of Var(b−a) with conservative results.

A final rule of thumb is that more complex estimators show smaller design effects than simple estimators.[9] Thus, correlation and regression coefficients tend to have smaller design effects than subgroup comparisons, and subgroup comparisons have smaller design effects than means. This implies that it will be conservative to use the mean root design effects presented here in calculating approximate standard errors for complex statistics, such as multiple regression coefficients. The procedure for calculating such approximate standard errors is the same as with simpler estimates: first, a standard error is calculated using the formula for data from a simple random sample; then, the simple random sample standard error is multiplied by the appropriate mean root design effect.

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[9] Kish, L., and Frankel, M. (1974). Inference from complex samples. *Journal of the Royal Statistical Society: Series B* (Methodological), *36*, 2-37.

One analytic strategy for accommodating complex survey designs is to use the mean design effect to adjust for the effective sample size resulting from the design. For example, one could create a new rescaled, design effect-adjusted weight, which is the product of the inverse of the design effect and the rescaled case weight, and use this new weight to deflate the obtained sample size to take into account the inefficiencies due to a sample design that is a departure from a simple random sample. Using this procedure, statistics calculated by a statistical program such as SPSS will reflect the reduction in sample size in the calculation of standard errors and degrees of freedom. Such techniques capture the effect of the sample design on sample statistics only approximately. However, while not providing a complete accounting of the sample design, this procedure is a decidedly better approach than conducting analysis that assumes the data were collected from a simple random sample. The analyst applying this correction procedure should carefully examine the statistical software he or she is using, and assess whether the program treats weights in such a way as to produce the effect described above.

3.4 Additional Sources of Nonobservational Error

Analysis of survey error is important for understanding the potential bias in making inferences from an obtained sample to a population. Sampling errors occur because the data are collected from a sample rather than a census of the population. Sampling error analyses for NELS:88 (documenting standard errors of measurement and design effects for key variables) were presented earlier in this chapter (see section 3.3). In this section, other sources of nonobservational error are discussed.

Nonobservational error results from measurements not being taken from a portion of the population.[10] Several factors comprise nonobservational error, including nonresponse biases caused by unit and item nonresponse and undercoverage. Nonresponse is readily quantified. While many data quality factors are difficult to measure in the non-experimental context of large-scale survey administration, NELS:88 offers the possibility of comparing reports from multiple sources, thereby permitting some approximate but useful validity parameters. Below, we discuss two kinds of nonobservational error in the NELS:88 second follow-up: undercoverage and nonresponse.

3.4.1 Biases Caused by Undercoverage of Special Populations

Undercoverage of Non-English Speakers. There is significant undercoverage in the NELS:88 data of the portion of the language minority population that is more severely limited in English proficiency (LEP) or non-proficient (NEP) in English. This undercoverage is most severe for the base year questionnaire data, and for test results from all waves of NELS:88. Undercoverage bias will affect estimates for LEPs and NEPs, but will also affect certain estimates for racial-ethnic subgroups that have large numbers of LEPs and NEPs when individuals in these groups generally differ in a relevant characteristic from other non-LEP/NEP Asians, Hispanics or others.[11] Although, for example, Hispanics and Asians were selected at a higher than normal rate in the base year, have been disproportionately retained in subsequent follow-ups, and have been added to the cohort as their eligibility status was found to have changed, significant numbers of LEPs were excluded from the base year sample.

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[10] Groves, R. M., *Survey Errors and Survey Costs*. New York: John Wiley and Sons, 1989, page 11.

Specifically, among the total number of eighth-grade students enrolled in the 1,052 fully participating base year schools, 1.9 percent of the potential sample (3,831 of 202,966) were excluded by their schools for reasons of a language barrier to participation. Had no students been excluded for language reasons, the NELS:88 baseline would have included an additional 532 students. All of these students would be classifiable as LEPs or NEPs; 270 of these excluded students were Hispanics, 175 were Asians, and the remaining 87 language-excluded eighth-grade students were of another race/ethnicity (neither Hispanic nor Asian). Some 24,599 students (out of 26,432 sample members) participated in the base year, and of these participants, 642 were classified either by self-report or teacher report as of limited English proficiency. If one counts as LEP all students reported as LEP by either source, then just over half of the LEPs in the potential sample were captured by the base year sample design and contributed data to the base year. (If one uses the more stringent criterion of counting only those so identified by both sources--self-report and teacher--or counts only those identified by teachers, then less than half of the potential LEPs are represented in the base year data.)

Initially in the first follow-up and then in the second follow-up, two measures were adopted to increase coverage of students with limited English language proficiency. 1) Eligibility rules were modified so that the number of LEPs obtained through sample freshening would be maximized. The modified eligibility rules were applied also to the sample of base year ineligibles in the first follow-up and to the ineligibles in the second follow-up followback study of excluded students. 2) In addition, base year and first follow-up ineligibles who had gained sufficient proficiency to complete survey forms in the first and second follow-ups were added to the cohort. Students with a language barrier who were reclassified were administered the student questionnaire in Spanish or English, or the dropout questionnaire (in English or Spanish) if they were school-leavers. Enrollment status data was gathered for those students who were classified as being still unable to complete the NELS:88 survey forms. Transcript data were also collected in the second follow-up for students ineligible for all three waves of NELS:88 who were enrolled in the twelfth grade.

LEPs who Entered the Sample through Freshening. Substantial numbers (236 total in the first and second follow-up rounds of freshening) of limited English-proficient students entered NELS:88 through the freshening process. LEPs are, of course, disproportionately present in the population of students who fall behind the modal progression through school. While, by the most generous count (that is, self-report or teacher report), only 2.6 percent (or, weighted, 2.3%) of the base year respondents were LEPs, around 17 percent of the freshening sample in first follow-up were classified by their schools as LEPs (176 out of 1,060). Virtually all of the LEP students selected in the freshening process were retained for the first follow-up.[12] Similarly, 69 of the 288 (24%) students identified in the second follow-up freshening process were classified by their schools as LEP; 60 (87%) of these LEP students were added to the NELS:88 cohort during the second follow-up.[13]

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[11] Of course, elements excluded from the sampling frame are not accounted for by sample weighting so that population estimates from the data file fall appropriately short of full 1987-88 eighth-grade enrollment figures. Nevertheless, such exclusions limit one's ability to describe in an unbiased way special populations of interest, such as all dropouts, all language minority students, and so on.

[12] Three had to be excluded because they had physical or mental disabilities that precluded their participation, and eleven were temporarily ineligible (out of scope for the first follow-up because though in the country at the time of freshening, they were outside the country at the time of data collection). The other 158 entered the first follow-up sample.

As noted above, eligibility rules were modified in the first follow-up to reduce the likelihood that LEP students would be excluded in the sample freshening process. With support from the Office of Bilingual Education and Minority Language Affairs (OBEMLA), the student questionnaire was translated into Spanish for both the 1990 and 1992 rounds; because a translation of the cognitive tests was not feasible, students completing the Spanish questionnaire were not pressed to attempt to complete the test component.

LEPs who Entered the Sample through Studies of Excluded Students. The same modified eligibility rules were applied retroactively to a sample of base year language-excluded students in the first and second follow-ups. Language-excluded students whose English proficiency status had changed such that they were able to complete the survey forms were administered the English-language version of the student or dropout questionnaire. Although cognitive test data were not collected for this group in the first follow-up, as many of these students as possible (45, or 34%) were tested in the second follow-up in 1992. The 532 students who would have been chosen for the base year except for language barriers to their participation were represented (with appropriate adjustment to their weights) in the first follow-up base year ineligibles study by 204 individuals; of these, 131 were found to be eligible (of which 118 participated) and were included in the NELS:88 cohort in the second follow-up. The eligibility of the remaining 73 language-excluded students was reassessed in the second follow-up followback study of excluded students (FSES); of these 73, 22 were found to be eligible and 19 (86.4%) participated.[14] Of the 51 second follow-up language-excluded students, only two were enrolled in the twelfth grade and were eligible for the transcript component. A transcript was collected for one of these students in the second follow-up.

LEP students added to the cohort through the freshening process appear on this data file. First follow-up data for base year language ineligibles who have become eligible did not appear on the initial 1991 public release student component file, but have been integrated into the first follow-up files and will appear in subsequent combined releases of NELS:88 data (1994 Electronic Codebook release). Since it was not necessary to exclude any freshened students for language reasons in the first follow-up and only one student was excluded in the second follow-up, and because cases representing about 74 percent of the base year language exclusions became eligible in either the first or second follow-up, the net effect of these additions to the data is to substantially reduce undercoverage of current and former limited English-proficient students. However, bias is at best but modestly reduced for the cognitive test data because some of the freshened LEP students and second follow-up FSES eligibles did not complete the cognitive tests, and none of the first follow-up reclassified base year excluded students completed the test battery. Data users should take these potential biases into account in their analyses.

Undercoverage of Students with Disabilities. There is significant undercoverage in the NELS:88 data of that portion of the special education population that is most severely mentally or physically disabled. Undercoverage bias may also affect certain estimates for racial or gender subgroups that have large numbers of students in the excluded category. (Our data show, for example, that Blacks and males are disproportionately represented in the class of students excluded owing to mental disability.)

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[13] Of the remaining 9 LEPs identified for freshening in the second follow-up, 5 were out of the country at the time of data collection, 3 had mental or physical disabilities that precluded their participation, and one spoke a language other than Spanish and could not complete survey instruments in English.

[14] Of these 73 excluded students, 40 were screened and determined to be ineligible, 21 had moved out of the country, and 12 remained unscreened.

Coverage of this population was improved in the first follow-up by the fact that in the base year ineligibles study, nine of the 23 students excluded because of physical barriers to participation, and 140 of the 322 students who had been excluded because of mental barriers to participation, were reclassified as eligible. Similarly, 49 of the previously ineligible sample members were found to be eligible in the second follow-up followback study of excluded students; of these 49 excluded students, 44 had been previously excluded due to mental disability and 5 for physical limitations. Of the students excluded from the second follow-up owing to physical or mental disability, 91 were enrolled in the twelfth grade and were eligible for the transcript component. Transcripts were gathered for 51 of these students in the second follow-up.

It is our sense that few of the previously ineligible students with disabilities found to be eligible in the second follow-up actually "changed" substantially between rounds; rather, most reclassifications reflected the process of taking a second look at students at the margin between eligible and ineligible, and aggressively pursuing status information from their special education teachers, information that would permit a more accurate assessment to be made of their ability to complete at least the student questionnaire. Overwhelmingly, the reclassified students would appear to be those with learning disabilities or emotional disturbances, rather than the mentally retarded. Hence students with severe or profound impairments are not represented in the NELS:88 data.

Estimates based on the members of the ineligibles sample are also subject to limitations. By and large, the NELS:88 samples of eligible and ineligible language-excluded students, when combined, provide excellent population coverage. However, for the severely physically and mentally disabled populations, there are two potential sources of exclusion in addition to school-level classification as ineligible. These further sources of undercoverage are 1) exclusion of schools (special purpose schools for the disabled were excluded from the base year sampling frame), and 2) the exclusion of ungraded classrooms in what was by definition a sample of eighth graders.

Test Score Undercoverage of Dropouts. Data users are reminded that no special nonresponse adjusted weight was created for cases with a completed questionnaire but without a cognitive test. As in the base year, cognitive test completion rates were sufficiently high that such a weight was not needed. Rates of test completion among in-school sample members were 96.5 percent in the base year and 94.1 percent in the first follow-up, with a decrease to 76.6 percent in the second follow-up.

However, the high overall rate of test completion for students does not apply to dropouts. While 91 percent of identified dropouts provided questionnaire data in the first follow-up, cognitive tests were completed by only half of the sample members who completed a full or abbreviated dropout questionnaire.[15] In the second follow-up, 88 percent of the dropouts provided questionnaire data but only 42 percent completed a cognitive test. This low rate of test completion is attributable to the high percentage of questionnaires that were administered by telephone, as well as to the strategy of obtaining questionnaire data only rather than accepting a refusal from a dropout or alternative completer unwilling to take the cognitive test. Of course, base year test score data are available for most of the individuals for whom first and/or second follow-up test results were not obtained. **It would be hazardous to, for example, draw conclusions about test score gains between 1988 and 1990 or between 1990 and 1992 for dropouts as a separate group, given the amount of 1990 and 1992 test data that are missing.**

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[15] According to the first follow-up design, dropouts administered the abbreviated or modified dropout questionnaires (28% of the dropout sample) were not asked to complete the cognitive test battery; for these sample members only the standard classification variables and a number of key items that differentiate the in-school and out-of-school populations are available for analysis.

3.4.2 Unit and Item Nonresponse

Unit Nonresponse. In the transcript component, unit nonresponse occurred when a school declined to participate in the transcript survey or failed to submit a transcript for a particular sample member. The contextual school participation (93.7%) and student coverage (92.0% weighted) rates for the transcript survey are high. (See Tables 2.3-1 and 2.3-2 in Chapter II.) Coverage rates vary somewhat by school characteristics and student ethnicity, with slightly lower coverage rates for Blacks, Hispanics, and students attending other private and urban schools.

Coverage rates for the dropout/alternative completer sample are markedly lower (70% weighted, for the total sample), and vary more widely by student ethnicity, from 75 percent for Asians and Pacific Islanders to 58 percent for Blacks. A number of difficulties were encountered in the collection of transcripts for dropouts and alternative completers:

- Signed transcript release forms were collected for only 45 percent of the dropout sample; schools were particularly reluctant to provide transcripts for dropouts without signed forms, despite assurances concerning the legality of doing so.

- School records for dropouts--some of whom had not attended school since 1988--were frequently archived or unlocatable.

- School and sample member reports of enrollment were sometimes inconsistent, making it difficult to determine whether the sample member had attended high school, and if so, what school he/she had last attended.

- For early dropouts who had not participated in the first and second follow-up surveys, all information about high school enrollment was missing, making the pursuit of school records impossible.

- The dropout/alternative completer sample includes 213 sample members with imputed dropout status. Transcripts were collected for only 41 percent of these sample members, who could not be located in the second follow-up, and for whom recent high school enrollment data and signed transcript release forms were not available.

The transcript coverage rate for the dropout and alternative completer sample is an underestimate of the actual coverage rate, since it is likely that some proportion of the dropouts included in the sample did not attend high school and are therefore ineligible for the transcript survey.

Item Nonresponse. As noted above, sampling and coverage errors are two key components of total survey error. Sampling error is quantified through the standard errors and design effects for key variables. There are other sources and types of error, including estimate error or bias associated with unit (individual) nonresponse and item nonresponse. In addition to its role as a potential source of bias, item nonresponse also has the effect of diminishing the number of observations that can be used in calculating statistics from affected data elements and thus increases sampling variances. Since item nonresponse is an important potential and uncorrected source of data bias, it is necessary to measure its impact so that analysts can properly take potential response biases into account when developing their analysis plans. NCES's standard asserts that total weighted nonresponse for an item (unit nonresponse multiplied by item nonresponse) should not exceed 30 percent. This section reports specifically on nonsampling measurement error as a function of item nonresponse.

In the transcript component, item nonresponse occurred when school staff failed to provide certain information requested and attempts to retrieve key data elements were unsuccessful. While bias associated with unit nonresponse has been controlled by making adjustments to case weights, item nonresponse has generally not been compensated for in the NELS:88 transcript component data set.

Unit nonresponse is an additional source of missing item data--transcript data were not collected for approximately 10 percent of eligible sample members. Weights accommodate unit nonresponse by projecting transcript data to the full population, with appropriate adjustments for defined subgroups. However, nonresponse-adjusted weights cannot compensate for the bias that arises if data for nonrespondents and respondents are different. Hence "total response" should be thought of as the survey (unit) coverage rate times the item response rate. (For example, given a cross-sectional weighted transcript coverage rate of 88 percent, and an item response rate of 88 percent, total response would be 77 percent.)

The objective of the following nonresponse analysis is to quantify nonresponse to student-level transcript variables. In order to realize this objective, average nonresponse rates were calculated for each item for all sample members for whom transcripts were collected. The nonresponse analysis of transcript data is quite brief, because of the small number of non-composite student-level items.

Definitions.

Definition 1: "Item"

For purposes of this analysis, "item" refers to each data element or variable. (Transcript variables are listed in Appendix G; frequencies for transcript variables appear in the codebooks, in Appendix I).

Definition 2: "Response Rate"

NCES standards stipulate that item response rates (Ri) "are to be calculated as the number of respondents for whom an in-scope response was obtained (i.e., the response conformed to acceptable categories or ranges), divided by the number of completed interviews for which the question (or questions if a composite variable) was intended to be asked.":

$$Ri = \frac{\text{weighted \# of respondents with in-scope responses}}{\text{weighted \# of completed interviews for which question was intended to be asked}}$$

In-scope responses were considered to be valid answers (including a "don't know" response when this was a legitimate response option). Out-of-scope responses were refusals and missing responses.

Definition 3: "Nonresponse"

For the transcript component two numerical reserved codes were used to categorize nonresponse. The reserve codes and definitions appear below. The first--8--defines out-of-scope or illegitimate nonresponse, and was used as the basis for this nonresponse analysis.

8 = Missing. The datum is illegitimately missing. That is, a datum that should be present for this sample member is missing.

9 = Legitimate Skip. The datum is legitimately missing. That is, owing either to data to preceding filter items or to other sample member characteristics, data for this item should not be present for this sample member. Data coded as reserve code 9 were not included in the nonresponse analysis.

Item-Level Nonresponse for Student-Level Variables. Table 3.4.2-1 shows nonresponse rates for student- level transcript items, excluding constructed variables and Advanced Placement and College Board Achievement test items. Critical items are denoted by an asterisk. Rates of nonresponse for most items are high--ranging from 2.2 to 77.1 percent--but are comparable to item-level nonresponse rates in other high school transcript studies, including the 1982 HS&B and 1987 and 1990 NAEP transcript studies.

Nonresponse is particularly high for F2RAB88 through F2RAB91, number of days absent per school year. (Note that for dropouts, F2RAB88 through F2RAB91 were not coded as legitimately skipped for years of nonattendance, resulting in a slight inflation of item nonresponse.) Similar rates of nonresponse for days absent per school year (between 40 and 45 percent, unweighted) were encountered in the 1982 HS&B transcript study

F2RAB88 through F2RAB91 were initially deemed to be critical items. However, retrieval of missing absence information proved to be burdensome to both survey staff, because of the high initial rate of nonresponse, and school staff. School staff frequently refused to provide the requested information. Transcript preparers often reported that retrieving absence information would require pulling attendance records for each sample member and totalling absences across reporting periods for each school year. Retrieval of absence information was deemed to be unfeasible. Consequently, item response for F2RAB88 through F2RAB91 was dependent on the frequency with which schools normally report attendance information on transcripts or provided that information specially for the transcript survey.

Nonresponse is also relatively high for two critical items: class rank, F2RRANK, 24.5 percent; and class size, F2RCSIZE, 21.0 percent. Nonresponse rates for class rank and size in the HS&B transcript study were of similar magnitude: 29.7 percent, unweighted. Some schools in the second follow-up transcript survey did not rank all or some students, such as special education students or dropouts and alternative completers. No attempt was made to distinguish unranked students from ranked students with missing class rank in data collection or in the transcript data file. Weighted item response rates for F2RRANK and F2RCSIZE for contextual students are 85.3 percent and 88.8 percent. As expected, the rates for all other transcript sample members, mostly dropouts and alternative completers, are much lower; the weighted item response rate for F2RRANK for this group is 27.0 percent, and the rate for F2RCSIZE is slightly higher at 30.4 percent.

Standardized Test Scores. Standardized test scores--PSAT, SAT, ACT, College Board Achievement, and AP--were requested in transcript data collection materials, but were not deemed to be critical items and were not retrieved from school staff when missing from transcripts. A test score may be missing because it was not reported by the school, or because the sample member did not take that particular test. No attempt was made to distinguish between the two sources of nonresponse in data collection or in the transcript data file. The nonresponse rates for these items are consequently very high, from 72.5 percent (unweighted) for F2RPSATV to almost 100 percent for some Advanced Placement and Achievement tests. (The student questionnaire asked whether the student had taken an Advanced Placement test [and if so, when] or planned to; however, it did not identify the subject. Likewise, the questionnaire asked whether the student had taken the SAT, PSAT or ACT.) Nonresponse rates were equally high for test items in the HS&B transcript study, ranging from a low of 75.1 percent (unweighted)

Table 3.4.2-1
Nonresponse for student-level transcript items

Item		Weighted Percent Missing	Unweighted Percent Missing
F2RAB88	DAYS ABSENT 88-89 SCHOOL YEAR	43.4	43.3
F2RAB89	DAYS ABSENT 89-90 SCHOOL YEAR	42.1	42.2
F2RAB90	DAYS ABSENT 90-91 SCHOOL YEAR	44.5	44.0
F2RAB91	DAYS ABSENT 91-92 SCHOOL YEAR	45.9	44.0
F2RSPFLG*	PARTICIPATION IN SPECIALIZED COURSES/PROGRAMS	2.2	1.8
F2RRANK*	CLASS RANK FOR LAST YEAR ATTENDED	24.5	22.5
F2RCSIZE*	CLASS SIZE FOR LAST YEAR ATTENDED	21.0	18.1
F2RDTLMO*	MONTH STUDENT LEFT SCHOOL	4.2	3.8
F2RDTLYR*	YEAR STUDENT LEFT SCHOOL	3.5	3.1
F2RREASL*	REASON STUDENT LEFT SCHOOL	2.3	2.0
F2RGPA	CUMULATIVE GPA FOR LAST YEAR ATTENDED	23.4	21.4
F2RPSATM	PSAT (MATHEMATICS)	71.8	66.6
F2RPSATV	PSAT (VERBAL)	71.7	66.6
F2RSATM	SAT (MATHEMATICS)	72.5	67.3
F2RSATV	SAT (VERBAL)	72.5	67.3
F2RACTC	ACT (COMPOSITE SCORE)	76.8	72.8
F2RACTE	ACT (ENGLISH SCORE)	77.1	73.3
F2RACTM	ACT (MATH SCORE)	77.1	73.3
F2RACTR	ACT (READING SCORE)	77.1	73.3
F2RACTS	ACT (SCIENCE REASONING SCORE)	77.1	73.3

* denotes a critical item

for the PSAT mathematics component to almost 100 percent for some Advanced Placement and Achievement tests.

For the PSAT and SAT, more accurate estimates of nonresponse may be calculated by comparing test taking by 1992 NELS:88 seniors with College Entrance Examination Board test taking statistics for the cohort.[16] Approximately 45 percent of high school juniors took the PSAT in October 1990. PSAT scores were collected for 34.5 percent (weighted) of the 1992 NELS:88 senior cohort eligible for the transcript survey. Estimated response for the two PSAT items on the transcript component student file is roughly 75 percent. Approximately 40 percent of 1992 seniors took the SAT any time during their high school years, through April 1992.[17] SAT scores were collected for 34 percent (weighted) of the 1992 NELS:88 senior cohort eligible for the transcript survey. This suggests that response for the two SAT items included on the student data file may be as high as 85 percent.

Item-Level Nonresponse for Course Variables. As expected in a transcript study, nonresponse to course-level items is negligible, as indicated in Table 3.4.2-2.

Table 3.4.2-2
Nonresponse for selected course-level variables

Item		Unweighted Percent Missing
F2TRSCID	PUBLIC ID OF SCHOOL AT WHICH COURSE WAS TAKEN	0.8
F2RYEAR	SCHOOL YEAR IN WHICH COURSE WAS TAKEN	0.0
F2RGRLEV	GRADE LEVEL IN WHICH COURSE WAS TAKEN	0.3
F2RT_TYP	TERM IN WHICH COURSE WAS TAKEN	1.9
F2RCRED	SCHOOL-ASSIGNED COURSE CREDITS	0.4
F2RGRADE	STANDARDIZED COURSE GRADE	0.3

Incomplete Course Data. Missing course data is an additional source of nonresponse and potential bias. Course data appearing on the transcript component data file may be incomplete for one of three reasons:

1. School staff occasionally reported that dropouts had not dropped out but had transferred to another school.

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[16] According to the College Entrance Examination Board, 1,094,753 high school juniors took the PSAT/NMSQT in October 1990.

[17] A total of 1,034,131 1992 seniors took the SAT at any time during their high school years through April 1992.

2. A small number of students transferred from contextual schools after student data collection, in the winter or spring of 1992.

3. Some sample members had transferred into the schools submitting transcripts. Incomplete transcripts, which were missing transfer school course data, were occasionally submitted by schools. Survey staff attempted to collect transfer school records for dropouts and transfer students. Schools to which dropouts had reportedly transferred frequently reported that the sample member had never attended the school. Transfer schools, which were usually not part of the NELS:88 school sample, were also less cooperative than survey schools.

The transcript data availability flags (F2RTR09 through F2RTR12) may be used to assess the completeness of course data for individual students and to define for analytic purposes a sample of students with comparably complete transcript data. Complete course-taking histories--consisting of at least one course record for each of grades 9 through 12--were collected for 95 percent (weighted) of twelfth-grade contextual students reported to have graduated. Data for grades 10 through 12 were collected for 96 percent (weighted) of this cohort. The completeness of transcript data for dropouts is difficult to assess, because of the inconsistency of sample member and school reports of enrollment.

IV. Data Control and Preparation

This chapter describes the procedures used to transform student- and course-level transcript data into data files. These procedures included monitoring the receipt of transcripts, identifying missing transcripts or data, retrieving missing information, entering student and course information, coding courses using the 1982 Classification of Secondary School Courses updated for the 1987 and 1990 NAEP high school transcript studies, checking the quality of data entry and coding, and preparing transcripts for archival storage.

4.1 Receipt Control

Receipt control clerks checked transcript packets for completeness and reviewed transmittal documents to ensure that transcripts were returned for the specified sample members. A case-specific, bar-coded label was affixed to each transcript, and a preliminary disposition code was assigned to each sample member associated with the school. This code indicated whether a transcript had been received for the sample member and whether retrieval of missing data elements was necessary. Receipt control clerks entered this disposition code into a microcomputer-based survey management system. Schools were also assigned disposition codes indicating receipt of transcripts, necessity of retrieval, and refusal. School- and sample member-level progress reports were generated from the survey management system on a weekly basis throughout data collection.

Receipt control clerks placed all transcript-related documents--including transcripts, student checklists, course catalogs or other course listings, program identification sheets, and school information forms--in prepared school folders. Throughout data control and preparation, transcripts were processed by school.

4.2 Retrieval

School folders were reviewed by data entry clerks and coders to determine whether contact with transcript preparers was necessary to resolve discrepancies or to retrieve missing transcripts, forms, course catalogs, or data elements. Clerks also identified transfer schools to be contacted for the retrieval of missing course data. Schools not requiring retrieval were routed to data entry.

Missing transcripts, forms, or data were retrieved by telephone or mail. The outcome of each retrieval attempt was thoroughly documented on a problem resolution form before the completed school was forwarded to data entry.

4.3 Transcript Entry

The student- and course-level transcript data were data entered using a computer-assisted data entry system (CADE). The CADE system consisted of sequential data entry screens requesting specific student- and course-level data, such as SAT scores, course title, and credits earned. Screens were grouped by data type (student or course) to facilitate accurate and expedient abstraction. Identifying information (sample member name and identification number and school name and PIN) was preloaded into the data entry system. Valid ranges, data field size, and data type (e.g., numeric or text) were specified for each data element; clerks were required to re-enter data failing these checks.

Printouts of the data entry screens are included as Appendix C.

4.3.1 Data Entry Procedures

Each transcript school was assigned to a single clerk for data entry. Data entry clerks thoroughly reviewed all transcript-related documents contained in school folders before beginning to abstract data from transcripts. Variables entered included:

Student-level information.

Number of days absent per year - The number of absences for the 1988, 1989, 1990, and 1991 school years was entered as reported by the school, including fractions of days. Absences reported as hours were converted to days, assuming a seven hour school day. Fractions of days were rounded during machine cleaning to the nearest whole or half day.

Numerical class rank for last year attended

Class size for last year attended - The base class size--graduating or enrolled students--was not specified in data collection materials.

Participation in special programs - Transcript preparers were asked to report sample member participation in a special, bilingual, or gifted education program or course. This information was not verified by checking either transcripts or course catalogs.

Month and year sample member left school - The final withdrawal date or graduation date was entered. (Withdrawal dates span the period from winter 1988 to spring 1993, since transcripts were collected through the second term of the 1992-93 school year.)

Reason sample member left school (graduated, transferred, etc.)

Cumulative grade point average - The sample member's grade point average was entered as reported by the school; the form of grade point average used by schools varied widely, from 4 to 5 point scales to percentages. A few students in the sample have high school GPAs in excess of 100 percent because of extra quality points awarded for particular courses by their schools. No attempt was made to standardize grade point averages to a common metric during data entry or machine cleaning.

PSAT and SAT scores - When more than one set of PSAT or SAT scores was reported for a sample member, the set with the highest combined verbal and mathematics scores was data entered.

ACT scores, including composite, English, mathematics, reading, and science reasoning scores - When more than one set of ACT scores was reported for a sample member, the set with the higher(est) composite score was entered.

College Board Achievement Test scores - When more than one Achievement Test score in a subject area was reported for a sample member, the higher(est) score was entered.

Advanced Placement Test scores

Course-taking histories for grades 9 (or 10) through 12. For each course, the following information was entered:

> *Course title, school-assigned course number, and course department* - Course titles were keyed verbatim from transcripts. When level or track indicators appeared on transcripts in fields separate from the course title field, these indicators were entered in the course title screen of the data entry system. When available, school-assigned course numbers and course departments were entered as separate data elements.
>
> *School at which course was taken* - If the school at which the course was taken was different from the school providing the transcript, the data entry clerk flagged the course and entered the NORC identification number of the transfer school; this PIN was later converted to a public ID for the school.
>
> *School year in which course was taken* - Summer school courses were entered under the preceding school year. Courses taken in the summer of 1991, for example, were entered under the 1990-91 school year (F2RYEAR=90). For students who had fallen behind the modal progression sequence and whose transcripts were received late in the data collection period, course data for the 1992-93 school year was entered (F2RYEAR=92 for these course records).
>
> *Grade level* - The grade in which the sample member was enrolled at the time the course was taken was entered.
>
> *Term type* - The term in which the course was taken, as reported on the transcript, was entered. Some schools reported courses only at the year level; the term in which courses were taken was not documented on transcripts. For these schools--which may be identified by the high proportion of courses with less than one Carnegie unit and term type coded as year--the term type entered may be an unreliable indicator of the actual duration of the course.
>
> *Credits* - The number of credits awarded for the course was entered as reported by the school.
>
> *Grade* - Letter grades were coded using the scales in Appendix D. One scale was used to convert letter grades to standardized grade codes. A second set of scales were used to convert number grades to grade codes.

Transcript Format and Course Entry. Schools reported course-taking at the year or term level on transcripts. When schools reported course-taking at the year level and provided final grades, only one entry was made for each course reported. When schools reported course-taking at the year level, but provided only term-level grades, courses were entered as though they had been reported at the term level, with individual course entries being made for each term, and the yearly credits divided among the term-level entries.

In the 1982 High School and Beyond Transcript Survey, courses appearing on transcripts under multiple terms for the same school year were data entered only once; credits were summed across the terms and the grade for the last term was entered. An algebra course, for example, reported on a transcript as having been taken in the first and second semesters, with semester grades and no final grade reported, was entered as one year-long course with the second semester grade, not as two semester-long courses. To simplify data entry and ensure high quality data, no attempt was made to combine course data across terms. Not doing so precluded much post-entry splitting of combination courses (two or more distinct term-long courses reported as though they were a single year-long course on the transcript, e.g., "AGRICULTURE/ENGLISH II").

Standardization of Credits. After data entry, clerks recorded the number of credits awarded by a school for the completion of a one-year academic course taken one period a day, five days a week. This factor, which varied from one to twenty, was used in machine cleaning of the data to standardize school-reported credits to a standard metric, the Carnegie unit. Dividing school-reported credits by the conversion factor yielded credits in Carnegie units. Because of the wide variation in credit systems, and the frequency of transfer courses, credits were sometimes standardized on a course-by-course basis.

4.4 Course Coding

After all transcripts for a school had been data entered, the course data (e.g., course title, credits earned) for each student was uploaded to the transcript coding system. This system consists of a relational database with a CSSC lookup table function. The relational database comprised tables containing school, student, and course data. The CSSC lookup table, which displayed possible transcript title-CSSC course matches and CSSC course descriptions, enhanced both the speed and quality of coding by reducing hardcopy lookup time and eliminating errors from manual entry of CSSC codes. Each coder was given a hardcopy CSSC; however, all CSSC codes were entered through the lookup table function, which checked the validity of the code manually entered before writing it to the course table.

4.4.1 Coder Training

Coders were trained over a two day period. One week prior to training, trainees were given self-study materials, including a coding manual and a copy of the Classification of Secondary School Courses. The first day of training consisted of a discussion of the structure of the CSSC, followed by a walkthrough of the coding software. Coders then practiced coding courses in a training database. On the second day of training, coders continued to code courses in the practice database. At the end of the second day, the coded courses were downloaded and printed, and supervisors checked the appropriateness of the CSSC codes selected. Feedback, primarily related to recognizing track and level indicators, was provided to coders, and coders with acceptable error rates (five percent or less) began actual course coding on the third day.

4.4.2 Coding Procedures

Transcripts were coded by school. Because of the small average school cluster size (ten sample members) and the number of schools participating in the transcript study (over 2,000), no attempt was made to code catalogs prior to transcript coding, with the exception of some of the course catalogs for 247 schools in the course offerings and enrollments component of the school effectiveness study. For most schools, only those courses appearing on sample member transcripts were coded. During coding, coders had full access to all transcript-related documents, including any course catalog or other course listing provided by the school.

In the lookup system, coders retrieved school, student, and course data from database tables. Variables appearing on the coding screen included:

- School name and identification number
- Student name and identification number
- All course information entered in the CADE program (course title, department, and number; term, grade level, year, course school, credits, and grade)

Courses were not batch coded; each sample member's courses were coded individually. Using the lookup table function, coders searched for probable matches between the transcript course title and CSSC courses. After referring as necessary to the course catalog and the CSSC course description displayed in the lookup table, the coder selected the appropriate CSSC code, and the system wrote the code to the course table. Grade level, course level (first, second, third course in a sequence) and track (basic, average, honors) indicators were used in assigning CSSC codes to transcript titles. Coders also routinely checked transcripts to ensure that any such indicators not data entered were taken into consideration in course coding.

Coders flagged sample members with special education courses for coding by a special education specialist. These specialists received training in the application of the special education course coding conventions developed for the 1987 High School Transcript Study. The NELS:88 transcript study, however, did not utilize the seventh digit extension to the regular CSSC code employed in the 1987 and 1990 NAEP transcript studies to identify courses with a regular curriculum title plus a special education identifier. In NELS:88, the special education identifier was ignored in coding; courses were coded according to the regular curriculum title.

For 11 percent of the transcripts coded, no course catalog, student handbook, or other course listing was provided by the school submitting transcripts, despite multiple retrieval attempts. Similarly, course catalogs were frequently not available for courses taken at transfer schools, most of which were not in the school sample. If available, course materials for other schools in the same district were used in coding. If not, coders were required to code courses based on title (and grade level, course level, and track indicators) alone. Courses that could not be assigned a specific CSSC code were assigned an "other" code under a CSSC program or subject area. Some particularly intractable transcript course labels (e.g., "MINI-COURSE") could not be assigned to even a CSSC subject area, even when a course catalog was available; these courses were coded as uncodable (600000). All courses coded as uncodable were reviewed by coding supervisors. Where deemed appropriate, transcript preparers were contacted to clarify coding problems; only 0.2 percent of all courses were uncodable. Transfer credits not reported by course or subject area were assigned CSSC code 600001 (undifferentiated transfer credits).

4.5 Transcript Entry Quality Control

Coders, who were also trained data entry clerks, were responsible for conducting a 100 percent verification of transcript entry prior to beginning coding. Any data entry errors, excluding trivial typographical errors in course title, were recorded on error sheets; corrections were made in the CADE instrument for the transcript.

4.6 Course Coding Quality Control

Transcript course coding was reviewed by expert coders. For each school, a printout of course records, including student identification number, course title, grade level, year, and CSSC code, was generated. This school-level coding list was sorted by CSSC code and course title. Coders reviewed lists to ensure that: 1) CSSC codes had been applied consistently and courses had been coded properly within schools; 2) courses had been coded consistently according to track (basic, general, honors) and sequence level indicators in course titles; and 3) special education courses had been recognized as such and had been coded properly. Any corrections to CSSC codes were made directly in the course file.

V. Data Processing

Data processing activities spanned the entire length of the NELS:88 second follow-up transcript component, beginning with receipt control, through the preparation of course data tables for the coding system, and ending with the machine editing of the data and the preparation of restricted use data files and user's documentation. This chapter describes the machine editing of data entered in the CADE transcript instrument, as described in the previous chapter, and the creation of student- and course-level files from these data.

5.1 Machine Edit

Conventions for editing, coding, error resolution, and documentation adhered as closely as possible to the procedures and standards previously established for HS&B.

The data entry system checked entries to ensure that each conformed to valid ranges or codes defined for the particular data item, including legitimate missing codes. Only those items in which open-ended responses were collected were not subjected to these constraints. The system was also programmed to provide automatic paths through the transcript instrument to enforce skip patterns and impose appropriate inter-item consistency checks. The transcript coding system, used solely to assign CSSC codes to the courses entered in the CADE instrument, also performed complete checking of all code entries to ensure that they conformed to valid CSSC codes. These automatic checks on the data obviated some machine editing.

After transcript data had been entered, sequences of logical machine edits and visual inspection of the output began. The tasks performed included: supplying the appropriate missing data codes for items left blank, detecting illegal codes and converting them to legitimate or missing data codes, and investigating inconsistencies, contradictions, or anomalies in the data. Variable frequencies and crosstabulations were inspected before and after these steps to verify the correctness and appropriateness of the automated machine editing processes.

After all improperly entered data had been corrected or converted to blanks, the transcript data were passed through a second step in the editing program that supplied the appropriate reserve codes to fill blank fields. The reserve codes and their meanings are:

8=MISSING
9=LEGITIMATE SKIP

If the field is longer than one column, the right-hand column contains one of the above codes and the rest of the columns are filled with "9"s.

Detection of out-of-range codes was completed during data entry for all data items except those permitting an open-ended response. Items with unusually high nonresponse were checked by verifying the data on the transcript hardcopy.

5.2 Data File Preparation

The CADE program files were used to generate control statements for both SAS and SPSS. Information from these files, when combined with the actual transcript data abstracted during data capture and the CSSC codes assigned during coding, was used to produce documentation for the final data files described in detail in Chapter VI.

The conventions used to assign SAS and SPSS-X variable names are as consistent as possible with HS&B and NLS-72. In those two surveys, variable names were assigned according to the survey wave and the component. A similar system was developed for NELS:88. For example, F2RCRED, the number of credits awarded by the school for the course, is from the second follow-up survey (*F2*) transcript component (*R*).

A number of composites, or specially constructed variables, have been added to the transcript component student file to facilitate analyses using course-taking data. Some items add information from study sources that would otherwise be unavailable to users, some reference respondent properties to external standards that would be expensive for individual analysts to create, while still others are recodes or combinations of internal transcript data sources. Some will be used by all, or nearly all, analysts while others will be appropriate to those seeking insights into distinctive populations, relationships, or events. Moreover, some items have appeared in earlier rounds of NELS:88. Specifications for the composites and flags included on the transcript component student file are included in Appendix G.

Only one of the standard reserve codes, described above, is applied to composite variables during construction. For one-column variables an "8" (MISSING) is a valid missing code. This reserve code is used when the sources for data are missing due to either item nonresponse or nonparticipation in all or part of the components of the study.

VI. Guide to the Transcript Component Data Files and Documentation

This chapter describes the content and organization of the second follow-up transcript component data files, and the associated hardcopy codebooks provided to document the files and assist researchers' conceptual designs for their own analyses.

The transcript data files may be used in stand-alone analyses of high school course-taking. The files also may be used as a contextual data source in conjunction with other NELS:88 data files. Fourteen NELS:88 study components are available to privileged users on magnetic tape or in ASCII format on CD-ROM (Compact Disc-Read Only Memory). Table 6-1 displays these NELS:88 products by study component in the base year, first follow-up, and second follow-up surveys. Public use data files, for all components except transcript for all three waves of NELS:88, are available on magnetic tape and in Electronic Codebook (ECB) format on CD-ROM. Because of issues related to respondent confidentiality, transcript data--with the exception of transcript composite variables added to the final student component public and restricted use data files--are available only as restricted use data files on magnetic tape and will appear in an ECB on CD-ROM.

Magnetic tape releases contain files that are specific to one survey wave and one component, such as the second follow-up student component data. There are two releases of second follow-up CD-ROMs, an interim and a final version. The interim version contains the same information as the BY-F1 CD-ROM that was released in the spring of 1993 and adds student and dropout data from the second follow-up. The final version provides updates to both the cases that appear on the files and to certain composites and test scores, and contains all of the second follow-up public-use survey components as well. The 1994 version of the second follow-up CD-ROM includes both public use and restricted use files, except for the transcript component. The transcript component data, along with all other base year, first follow-up, and second follow-up datasets, will appear on the 1995 NELS:88 third follow-up ECB/CD-ROM.

The student and dropout questionnaire and transcript data sets are the central units of analysis in NELS:88. Each of the student data files may be examined as an independent entity or may be combined for observation of the maturation of the original student cohort over time. The student and dropout data files released in the second follow-up of NELS:88 may be combined with transcript data and data from second follow-up surveys of parents, teachers, and school administrators. The most powerful analyses are possible when students are viewed in this contextual framework across the four-year time frame that is now available. The NELS:88 files are designed to be merged and used to examine how different student and dropout outcomes relate to various structural patterns, as measured by school, parent, teacher influences and transcript data, and/or the ways in which these change over time. Transcript data, when merged with the student and dropout files and the contextual data sets, furnish objective and reliable measures of important aspects of students' educational experiences, including course-taking patterns, curriculum exposure, and educational outcome.

It is important to bear in mind that the school, teacher, and parent data files are dependent upon and subsidiary to the student and dropout files in NELS:88. **These contextual data files cannot stand alone.**[1] The only exception is the base year school file, which is representative of eighth-grade American

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[1] Even for the base year and second follow-up parent surveys--which closely resemble probability samples of parents of the relevant student and dropout populations--there are some departures from the requirements of a stand-alone probability sample. In particular, some unknown number of base year and second follow-up parents had more than one sampled eighth grader, hence more than one chance of selection into the sample. In addition, in both the base year and second follow-up, only one parent was

Table 6-1
NELS:88 components and survey waves for which both magnetic tape and CD-ROM products are available

	Available	Number of Variables on Public Use Version
Base Year		
Student	Yes	411
Dropout	Not Applicable[a]	Not Applicable[a]
School	Yes	212
Teacher	Yes	239
Parent	Yes	332
Transcript	Collected in Second Follow-Up[c]	Collected in Second Follow-Up[c]
First Follow-Up		
Student	Yes	695
Dropout	Yes	562
School	Yes	834
Teacher	Yes	463
Parent	Not Collected[b]	Not Collected[b]
Transcript	Collected in Second Follow-Up[c]	Collected in Second Follow-Up[c]
Second Follow-Up		
Student	Yes	796
Dropout	Yes	574
School	Yes	429
Teacher	Yes	421
Parent	Yes	424
Transcript	Yes	---[c]

[a] Since by definition dropouts could only be identified and studied after the initial round of the survey, there is no base year dropout component.

[b] The parent component was only conducted during the base year and second follow-up.

[c] Transcripts collected during the second follow-up span the entire high school career. The transcript data are available in restricted use form only. Although there is no public use release of the transcript data, the restricted use transcript file includes 236 student-level variables and 251 course-level variables.

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surveyed, and that parent was self-selected.

schools and their principals in 1988. The first and second follow-up school components reflect characteristics of the secondary schools to which students in the contextual sample migrated after eighth grade, and the secondary schools selected for these components do not constitute representative samples. Inferences from the first follow-up and second follow-up school data files cannot be legitimately made if these data are viewed in isolation from the student files. Although their content is archival, the transcript data, like the student and dropout questionnaire data, are a part of the student-dropout datasets, and inferences can be made about the course-taking patterns and curriculum exposure of the various populations represented by the NELS:88 longitudinal panels and cross-sectional cohorts.

Several types of sample members are included in the transcript component data set, and the user must take care to select the correct set of sample members for analysis. Included in the data set are: 1) sample members who have participated in one, two or all three waves of the survey; 2) students who were added in the first or second follow-ups to freshen the sample; 3) base year ineligible sample members who were reclassified as eligible for inclusion in the first and/or second follow-up surveys of NELS:88[2]; and 4) triple ineligibles, base year ineligible sample members who were ineligible for the first and second follow-up surveys (and were not surveyed) and were in the twelfth grade in the second follow-up. Sample members in the transcript data set may also be categorized by educational outcome as determined from transcript data; these categories include:

1. Students who graduated from high school in the spring term of 1992
2. Students who graduated from high school prior to the spring term of 1992
3. Non-graduating students still enrolled in school as of the fall of 1992
4. Students who transferred to another school and for whom transfer school transcripts could not be obtained
5. Dropouts or dropouts enrolled in alternative programs

One of the first issues that analysts of NELS:88 data must address is defining the population sample for their analysis. Once this is decided, each analyst must use the proper sample identification and questionnaire availability indicators and the appropriate statistical weight. Section 6.1 provides an overview of the sample indicators and weights necessary for using the transcript data. Section 6.2 includes a complete description of the content and organization of the second follow-up transcript data files. Finally, section 6.3 offers an explanation of the hardcopy codebooks.

6.1 Basics for Analyses: Second Follow-Up Sample Indicators and Statistical Weights

6.1.1 Transcript Cross-Sectional and Panel Weights

The transcript weight (F2TRSCWT) is suitable for analyzing transcript data pertaining to the high school careers of the NELS:88 second follow-up sample of students, early graduates, and dropouts. F2TRP1WT and F2TRP2WT are designed for analyses using transcript data in conjunction with questionnaire and test data for the 1988 to 1992 panel sample and the 1990 to 1992 panel sample respectively. Like the other sample weights, F2TRSCWT, F2TRP1WT, and F2TRP2WT were adjusted to take into account nonresponse within critical subgroups.

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[2] Note however that the sample of reclassified BYIs (i.e., those found to be eligible in the first follow-up and second follow-up rounds) had not been released for analyses prior to the second follow-up wave of NELS:88.

It is important to remember that while transcript data are inherently longitudinal, spanning four year for most individuals, population estimates generated using F2TRSCWT have specific reference to the spring term of the 1991-1992 school year. Because the NELS:88 sample contains both dropouts and students, and represents three independent grade cohorts viewed in the spring term of 1992, the transcript weight does not inflate the sample to a conventional analysis population. Instead, particular analysis populations must be defined--for example, eighth-grade (or sophomore cohort) dropouts in 1992, high school seniors in 1992, graduating seniors in 1992, 1988 eighth graders in 1992, and so on.

6.1.2 Defining Analysis Populations

Students and dropouts can be distinguished by use of the various status indicators and flags provided for this purpose on the transcript component student file. Students may further be distinguished in terms of their cohort status (for example, member of the eighth-grade cohort of 1988 [see the flag G8COHORT], the sophomore cohort of 1990 [see the flag G10COHRT], the senior cohort of 1992 [see the flag G12COHRT]). These indicators--as well as the indicators of enrollment or dropout status (F2RWTST for the transcript component, F2F1DOST for the first follow-up student and dropout components, and F2DOSTAT for the second follow-up student and dropout components) are based on results of the student and dropout survey.[3]

Additional indicators of enrollment status (F2RREASL and F2RTROUT) and grade level are provided by the transcript data. However, consistency has not been forced between these sources: transcript data and data from the student and dropout surveys may sometimes disagree. Disagreement may come about because schools were not constrained to use the NELS:88 definition of a dropout for their own records purposes. In addition, transcripts oftentimes contain more recent information. It is possible, for example, for a sample member to have been surveyed as a student in February 1992, but to have dropped out, say in April 1992. Since transcripts were collected in the autumn of 1992, exit status for the transcript survey (as reflected in F2RREASL or F2RTROUT) would be that of a dropout. However, the individual would have completed a student questionnaire and F2DOSTAT (as well as F2RWTST) would classify this sample member as a student.

When merging the student and the transcript files, special note should be made of ineligible seniors (identified as code 04 for the F2STAT and F2RWTST indicators), a group for whom data does not appear on the student file. The addition of school records for these individuals enhances the senior year representativeness of the transcript data, but non-transcript data are not available for this group.

The transcript data files exist only in privileged use form. Therefore, users will find, in addition to the public use sample members, the fall-only members of the tenth- and twelfth-grade cohort. Fall-only cohort members are individuals added by the freshening process who dropped out of school before attaining spring-cohort membership. (For example, an individual who was in school in the fall of 1989 and brought into the NELS:88 sample through the freshening process but who dropped out prior to spring term 1990 would not be a member of the spring-defined 1990 sophomore cohort, and would appear only on the privileged use files.) Panel, sample, and cohort flags are fully described in Appendix G.

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[3] To produce precise population estimates of spring term 1992 cohort dropouts using F2TRSCWT, F2RWTST must be employed.

6.1.3 Other Weights

Only F2TRSCWT has been constructed specifically for use with the transcript data. However, because the school sample for collection of *student* transcripts was also the sample designated for collection of second follow-up school contextual data such as teacher questionnaires in science and mathematics and school principal data, the overall and subgroup sums for the contextual weight (F2CXTWT) are very close to the sums for F2TRSCWT when analysis is restricted to students. Hence for some purposes it may prove convenient to use the contextual weight when second follow-up student, transcript, school or teacher data are being used in conjunction. It should be noted however that while there is a good match between questionnaire and transcript data, transcripts were obtained for some questionnaire noncompleters and were not obtained for some questionnaire completers; this creates a comparatively small missing data problem when F2CXTWT is used in conjunction with transcript data or when F2TRSCWT is used in conjunction with student questionnaire data. However, analysts should note that when transcript data are used in conjunction with questionnaire and test data for either the 1988 to 1992 or 1990 to 1992 student panels, then they should employ either F2TRP1WT or F2TRP2WT respectively.

It should be noted that *weights have not been constructed for all possible analytic purposes*. When there is an analyzable population of interest for which no specific weight has been produced, substitution of another weight will, to varying degrees, produce biased population estimates.

In general, caution must be exercised if a researcher wishes to conduct a weighted analysis for which a specific weight has not been provided. The analyst must judge how much bias will be introduced by substitution of another weight. Two checks that should be made are 1) examination of the sum of the weights to compare that sum to population totals; and 2) analysis of undercoverage bias, that is, to what extent the disproportionate exclusion by design is not accounted for by the weight one wishes to use. *The specific purpose and required degree of precision of the analysis must be taken into account.* If subgroup estimates are central to the analytic plan, it is necessary to take into account bias at the subgroup level. In instances where more than one possible weight is available, the decision as to which is best to use should be guided by a comparison of the bias inherent in each alternative. Whatever weighting strategy is used, if the amount of bias is non-trivial, potential biases should be examined and reported with the results.

6.2 Content and Organization of the Data Files

The transcript component data set consists of student-level and course-level data files. The content and organization of those files is the subject of the sections that follow.

6.2.1 Student Data File

The second follow-up transcript component student file contains a record for each of the 17,285 sample members for whom a transcript was collected. The raw data file contains 68 student-level data items abstracted from transcripts, a large number of special flags, transcript-derived and non-transcript composite variables, and the transcript component statistical weight. The record layout for the file appears in Appendix E. The layout shows in detail the organization of the variables within each record on the file. The variables are grouped into similar logical sets as discussed below. For the sake of brevity, each item of data is referred to by its SAS (SPSS-X) variable name, as defined in the control cards provided with the data file.

Four files are provided for the transcript component student file. They are:

1. The raw data file with the following segments arrayed in the indicated order:
    a. Randomized student ID number (positions 1-7)
    b. ID number of the school providing the transcript (last attended school) (positions 8-12)
    c. Transcript component cross-sectional statistical weight (positions 13-22)
    d. Transcript component
    d. Student-level transcript data items (positions 23-193)
    e. Flags and classification composite variables copied from base year, first follow-up, and second follow-up student component data files (positions 194-227)
    f. Basic demographic composite variables copied from base year, first follow-up, and second follow-up student component data files (positions 228-253, 269-275, and 277-280)
    g. Composite variables constructed from student-level and course-level transcript data, including transcript-indicated educational outcome and subject area summary composite variables (positions 254-268 and 276-276, and 281-679)
    h. Transcript panel flags and weights (positions 680-701)
2. SPSS-X control cards for the student file
3. SAS control cards for the student file
4. SAS system file for the student file

6.2.2 Course Data File

The second follow-up transcript component course file contains a record for each of the secondary school courses taken by the 17,285 sample members for whom a transcript was collected. A total of 714,647 course records appear in the file. The raw data file contains 17 data items for each course, including identification codes. The record layout for the file appears in Appendix E. The layout shows in detail the organization of the variables within each record on the file. For the sake of brevity, each item of data is referred to by its SAS (SPSS-X) variable name, as defined in the control cards provided with the data file.

Four files are provided for the transcript component course file. They are:

1. The raw data file with the following segments arrayed in the indicated order:
    a. Randomized student ID number (positions 1-7)
    b. ID number of the school providing the transcript (last attended school) (positions 8-12)
    c. Sequentially assigned term and course ID numbers (positions 20-23). These ID numbers, when coupled with the student ID number, create a unique key identifying the course.
    d. Course-specific variables (e.g., course title, credits earned) (positions 13-19 and 24-117)

2. SPSS-X control cards for the course file
3. SAS control cards for the course file
4. SAS system file for the course file

6.2.3 Identification Codes

The first variable on all of the raw data files, STU_ID, is a unique seven-digit student identification code. This number remains with the student throughout NELS:88 waves and components. To link student records across two or more waves of the survey (1988, 1990, and 1992) or between survey components (transcript, student, dropout, school, teacher, and parent), analysts should use STU_ID. Because of the number of records in the course file, it is recommended that prior to the manipulation of course data the analyst use the flags on the student file to define a set of sample members of interest, and then merge the resulting file with the course file.

The student ID code consists of a five-digit base year school ID followed by a two-digit student code. Though both sets of numbers were randomly assigned to maintain confidentiality, the IDs contain embedded linking, stratum and PSU information.[4] Students added to the first or second follow-ups (the freshened students) were linked to a core sample member. The base year school ID of the linked student was used as the root of the added student's ID. Thus, in all cases, the student ID links the students (and dropouts) to a base year school.

The dropout component first appears in the first follow-up of NELS:88. While their student identification codes were constructed in the same way as described above for all students, by design no school or teacher data were collected for dropouts. School classification variables will be added to dropout records on the final second follow-up student component data files for the last school attended as reported in the second follow-up dropout questionnaire. Classification variables have also been included on the transcript component student file, for the last school for which transcript data are available.

6.2.4 Composite Variables

A large number of composite variables constructed from transcript data have also been added to the transcript component student file, in order to facilitate the use of the data in analyses. The majority of these variables sum course credits, in Carnegie units, by subject area for each student. Subject area summary variables may be used in cross-cohort trend analyses contrasting 1992 NELS:88 transcript data to data from the 1982 HS&B and 1987 and 1990 NAEP high school transcript studies. Three taxonomies were used to construct subject area summary variables for the 1992 NELS:88 transcript component: the taxonomy employed in National Center for Education Statistics analyses of data from the 1982 High School and Beyond Transcript Survey; the taxonomy used to create the "stub" variables for the 1987 and 1990 National Assessment of Educational Progress high school transcript studies; and the Classification of Secondary School Courses. Specifications for these three sets of derived variables are included in Appendix G; CSSC code and course lists for each variable appear in Appendix H.

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[4] Analysts who are employing variance estimation software should note that the student ID reflects the NELS:88 sampling plan in the following way: the left-most two digits of the ID represent the stratum identification number for the case; the middle three digits are the primary sampling unit (PSU) for the case; and the last two digits identify the case uniquely within the stratum and PSU.

Additional derived variables added to transcript component student file include:

1. Transcript-indicated educational outcome (F2RTROUT) and high school program (F2RTRPRG)

2. Flags indicating grades for which transcript data are available (F2RTR09 - F2RTR12)

3. Flags indicating whether the sample member earned a certain minimum number of Carnegie units in the **New Basics** subject areas (HS&B-equivalent, F2RNWB1A - F2RNWB5A; NAEP-equivalent, F2RNWB1B - F2RNWB5B). These flags were constructed using the HS&B and NAEP-equivalent subject area summary variables. Specifications for the flags are provided in Appendix G.

Composite variables are constructed in order to enhance substantive analyses. Since research questions frequently require independent or control variables such as the urbanicity of the school, the socioeconomic status of the family, or the gender of the individual, a large set of classification variables has been carefully constructed and added to the records on the transcript component student file.

Several composite variables on the transcript and student component files provide additional information about whether or not the sample member was an early graduate, a dropout, ineligible or out-of-scope, or freshened into the sample. These variables include F2QFLG, F2DOSTAT, F2RTROUT, and F2RWTST. Because school records may contradict other sources of sample members' enrollment status, the NELS:88 student and transcript component files include F2TRSTYP which identifies inconsistencies among different sources of a sample member's enrollment status. See Appendix H for a complete description of F2TRSTYP.

Complete specifications used to create these composite variables for the second follow-up can be found in Appendix G. In the respective student component data user manuals, see also Appendix H for base year student composites and Appendix I for first follow-up student composites. Perusal of these sections may also suggest to the reader additional ways in which the data may be configured through post-processing at one's own site.

6.3 Guide to the Transcript Component Codebooks

The hardcopy codebooks that have been provided for each wave of NELS:88 fully describe and assist with the interpretation of the variables on each of the data files. The hardcopy codebooks for the transcript component student and course files summarize all key information for each data element, including:

- the variable name and content
- the tape position and format of the variable on the data file
- valid and/or missing values and value labels for the item
- the unweighted frequency counts, percents, and weighted percents for each value

This basic presentation is supplemented with additional commentary, when further explanation is useful.

Figure 6-1 at the end of this chapter is an illustration of the information provided in the codebooks for each data element. Each portion of this example is numbered and explained below.

6.4 Restricted Use Data Files

NELS:88 restricted use data on magnetic tapes and on CD-ROM are available at no charge on a restricted loan basis to individuals and/or institutions that obtain an approved license agreement from NCES. To request a license agreement, the individual and/or institution must provide the following information:

- The title of the survey to which access is desired.
- A detailed discussion of the statistical research project that necessitates accessing the restricted NCES survey data.
- The name and title of the most senior official having the authority to bind the organization to the provisions of the license agreement.
- The name and title of the principal project officer who will oversee the daily operations.
- The number, name, and title of professional and technical staff who will access the survey data base. Each professional or technical staff member with access to the data is required to sign and have notarized an affidavit of nondisclosure.
- The estimated loan period necessary for accessing the NCES survey data base.
- The desired computer product specifications, such as medium (9-track tape, CD-ROM, PC diskette), code convention (ASCII, EBCDIC, SAS), etc.

To obtain further details and a license agreement form please write to:

Alan W. Moorehead
Data Security Officer
Statistical Standards and Methodology Division
U.S. Department of Education
Office of Educational Research and Improvement
National Center for Education Statistics
555 New Jersey Avenue, N.W.
Room 408
Washington D.C. 20208
ph. (202) 219-1920

Figure 6-1
An entry in the transcript component restricted use student file codebook

(1) ITEM F2RSPFLG

(2) Tape Pos. 39-40
(3) Format: I2

(4) F2RSPFLG (5) SPECIALIZED COURSES OR PROGRAMS

(6) PARTICIPATION IN SPECIALIZED COURSES OR PROGRAMS

	(7) RESPONSE	(8) CODES	(9) FREQ	(10) PERCENT	(11) WGTD PCT
	SPECIAL EDUCATION	01	580	3.4%	4.3%
	BILINGUAL EDUCATION . . .	02	303	1.8%	1.5%
	GIFTED EDUCATION	03	1423	8.2%	7.1%
	SPECIAL EDUCATION AND BILINGUAL EDUCATION . . .	04	8	0.0%	0.0%
	BILINGUAL EDUCATION AND GIFTED EDUCATION.	05	45	0.3%	0.1%
	NONE OF THE ABOVE	06	14623	84.6%	86.9%
(12)	RESERVED CODES:				
	Missing	98	303	1.8%	(MISS)
	TOTALS:		17285	100.0%	100.0%

Explanations:

1. **Item number:** For the transcript component, the item number is identical to the SAS and SPSS-X variable name.

2. **Tape position:** This item gives the starting and ending tape position of each variable.

3. **Variable format:** This item indicates the type of variable, its width, and the number of positions following the implicit decimal point, if any.

4. **SAS and SPSS-X variable name:** Each variable on the data set is identified by a unique SAS and SPSS-X variable name. "F2R" in the variable name indicates a second follow-up transcript component variable. Variable names attempt to describe variable content, e.g., F2RNWB1A for the first High School and Beyond-equivalent New Basics flag. The user should always refer to the variable by its SAS (SPSS-X) variable name in any computing procedures.

5. **SAS (SPSS-X) variable label:** A short variable label appears after the variable name. This label is the same as that which appears on the SAS (SPSS-X) data definition cards included on the tape.

6. **Expanded variable label:** This field provides the full label for the variable.

Figure 6-1, continued
An entry in the transcript component restricted use student file codebook

7. **Data categories:** This item provides either the original data categories or the recoded or constructed categories (for composite variables and data indicators, such as flags). For display in the codebooks, continuous variables have been recoded to collapse valid values into ranges. This allows the codebook tables to show the frequency counts, unweighted percentages, and adjusted weighted percentages for continuous variables without printing each value. These value labels are not the same as those on the SAS (SPSS-X) data definition cards. Condensed value labels that do not cause truncation problems are provided with the data definition cards.

8. **Data codes:** This item provides the actual numerical codes that appear on the data tape in the tape position specified (except for continuous variables, where the actual values that appear on the tape have been recoded to produce the frequency counts and percentages). Certain codes, discussed below, are reserved to indicate missing data, legitimate skips and so forth.

9. **Frequency counts:** This item shows the unweighted frequency counts for all records that were processed, including records that have missing data codes, legitimate skips, and so forth.

10. **Unweighted percentage frequencies:** This column displays the frequency counts of item F2RSPFLG as percentages. All records that were processed are included.

11. **Weighted percentage frequencies:** This column displays percentages based on category counts weighted up to the relevant population. Cases with reserved code values are excluded from the computation.

12. **Reserved codes:** In this data set certain codes, termed "reserved codes" have been chosen always to stand for certain situations. These reserved codes and their meanings are:

8=missing data	data that should be present for this sample member is missing
9=legitimate skip	because of data coded for a filter item, datum for this item should not be present for the sample member; that is, the datum is legitimately missing.

These reserved codes are identical to those used in the NLS-72 and HS&B surveys. The codes as listed above apply to variables with single-column data fields. For variables with fields greater than one column, the left-most columns are filled with 9s (e.g., 98, 998, 9998).

Finally, additional comments and notes may be included and displayed below the standard codebook information. These comments alert researchers to the potential for non-response bias, a relation to another similar variable or composite, or a recoding of a continuous variable in order to improve the codebook presentation.

APPENDICES

Appendix A

Conducting Cross-Cohort Comparisons Using HS&B, NAEP, and NELS:88 Academic Transcript Data

CONDUCTING CROSS-COHORT COMPARISONS USING HS&B, NAEP, AND NELS:88 ACADEMIC TRANSCRIPT DATA

The High School Transcript Studies. The immense value of school transcripts as objective, reliable measures of crucial aspects of students' educational experiences is widely recognized. With respect to level of detail, accuracy, and completeness, transcript data are vastly superior to student self-reports of exposure to learning situations.[1] When coupled with data on students' family backgrounds and demographic characteristics, school environments, and standardized competence and outcome measures, they permit the specification of complex models of educational processes.[2] Moreover, transcript components of longitudinal studies such as HS&B and NELS:88 permit the measurement of high school program and course effects on post-high school outcomes.

Transcripts also provide indicator data for measuring national education trends. Of particular interest are changes in course taking and trends associated with grading practices and program placement and participation. NELS:88 and other NCES studies supply archival data on these topics. These studies include the National Longitudinal Study of the High School Class of 1972 (NLS-72), the sophomore cohort component of High School and Beyond (HS&B), and records studies of the high school careers of 1987 and 1990 graduating seniors conducted as part of the National Assessment of Educational Progress. Some additional secondary transcript studies have been carried out as well.[3]

Although a separate transcript study was not conducted as part of NLS-72, school records data were collected. School administrators were asked to supply data on each NLS-72 senior's high school grade average, college admission test scores (SAT, ACT), courses taken, and major course of study.

HS&B, the NAEP High School Transcript studies, and NELS:88--unlike NLS-72--are characterized by a formal school records component in which courses have been coded using the successive versions of the Classification of Secondary School Courses (CSSC). These data sets have been designed to serve a number of purposes, including trend comparison. In order to properly compare data across these studies, however, analysts must be sensitive to points of difference that may affect comparisons. In addition to issues of content comparability, there are issues of sample design comparability. Content comparability is addressed in the crosswalk which appears as the final section of this appendix. Design comparability is discussed below, followed by a bibliography of sources of information on the transcript studies.

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[1] See, for example, Fetters, Stowe and Owings (1984) for a comparison of self-report and transcript data, drawn from High School and Beyond.

[2] HS&B and NELS:88 transcript data are directly linkable to individual student test scores, questionnaire data, and contextual data sources such as teacher, parent, and school administrator reports, at multiple points in time. NAEP transcripts can be linked to NAEP public use assessment results, as well as to school questionnaire and school course offerings data.

[3] Educational Testing Service collected high school transcripts for the Study of Academic Prediction and Growth in 1969. Private school students were not included nor was this a national probability sample of public high school graduates; however, the study is thought to give reasonable public school estimates. The Bureau of Labor Statistics National Longitudinal Survey of Labor Force Experience--Youth Cohort (NLSY), with sponsorship from the National Center for Research in Vocational Education, collected secondary school academic transcripts in three waves from 1980-83 for its sample of youths who were aged 14-21 in 1979; see *NLS Handbook 1992*, p. 138, p.147. Further information on both studies is given in Tuma, Gifford, Horn and Hoachlander (1989).

Sample Comparability Across NCES High School Transcript Studies. The overall sample design for HS&B, NAEP, and NELS:88 is quite similar. All are large, nationally representative school-based samples that have employed a multistage, stratified, clustered design. Despite their fundamental similarity, the designs differ somewhat in a number of features. Five differences should be noted because of their potential impact on the matter, the manner, or the possibility of comparative analysis:

-- *school and student oversampling*:
different rare student populations and school types have been disproportionately included in the studies;

-- *eligibility*:
who was included or excluded;

-- *representativeness*:
what cross-sectional and longitudinal populations the sample represents;

-- *sample sizes*;

-- *record completeness*.

Oversampling. Rare populations of high policy (or, as in the case of twins, methodological) interest were oversampled in some of the transcript studies. This factor, along with differences in overall sample size, mean that the number of cases available for analysis of rare populations may vary by a good deal across the studies. The 1987 NAEP high school transcript study oversampled students with disabilities. Non-sampled co-twins of HS&B sampled twins were included in the transcript component of the study. HS&B oversampled Hispanics; NELS:88 oversampled Asians and Hispanics;[4] NAEP oversamples schools with high percentages of Hispanics and Blacks. Private school students were oversampled in both HS&B and NELS:88, though the HS&B sample of non-Catholic private schools was comparatively small (31 non-Catholic private schools are included in the HS&B transcript study). Private school oversampling is also a feature of NAEP.

Eligibility. Potential undercoverage biases resulting from sample exclusion are summarized in Table 1. "Undercoverage" here refers to systematic undercoverage stemming from deliberate exclusion of certain categories of students from a sample--such as students with physical or mental disabilities or non-English speakers, who might find it difficult or impossible to complete demanding cognitive tests and questionnaires. There are other potential sources of undercoverage as well, such as incomplete sampling frame data (no national listing of schools is, or remains for very long, 100 percent complete and accurate) or omissions and errors in school rosters.[5]

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[4] Oversampling of Hispanics was somewhat differently implemented in HS&B and NELS:88. In HS&B, primarily in order to bolster the representation of Cuban and Puerto Rican Hispanic subgroups, a number of schools were added that had high Hispanic enrollments. In NELS:88, Hispanic (and Asian) students were selected at a higher rate from within the regular base year school sample.

[5] These other sources of undercoverage are thought to have only a very small impact on estimates; exclusion of students with physical, mental or linguistic barriers to assessment or survey participation is thought to be the most serious potential source of undercoverage bias for studies such as HS&B, NELS:88 and NAEP.

Table 1: Student sample exclusion and transcript undercoverage

Study	Undercoverage	Affected Groups[6]
HS&B 1982	unknown	language barrier severe physical or mental disability
NAEP 1987	none	
NAEP 1990	none	
NELS:88 1992		
Senior Cohort	negligible	
G8, G10 Cohorts	2.5%[7]	language barrier severe physical or mental disability

HS&B, NAEP, and NELS:88 have excluded students with severe mental, physical, or linguistic obstacles to completing survey forms. While all three studies have used similar exclusion criteria, specific guidelines differ somewhat across (as well as, over time, within) the studies. In an effort to minimize the number of exclusions, eligibility criteria were modified (in large part, by being made more specific) starting with both the 1990 NAEP and 1990 NELS:88.

Both NAEP and NELS:88 collect data on the characteristics of excluded students so that undercoverage bias can be quantified; detailed exclusion documentation is not available for HS&B. However, given the general similarity of eligibility rules for HS&B, NAEP, and NELS:88, one may presume on the basis of the NAEP and NELS:88 experience at the upper grade levels that HS&B base year exclusion rates were between 3 and 6 percent. Both NAEP and NELS:88 have been more inclusive in their transcript studies than in test or questionnaire administration. In NELS:88, all base year ineligible students who were seniors in the spring term of the 1992 school year were included in the transcript study. In the 1987 NAEP transcript study, the sample included 1) sample selections in the 1986 NAEP assessment, plus 2) students who were sampled for the assessment but deliberately excluded from it, and 3) all students with disabilities attending schools selected for the assessment. Thus categories of students who were disproportionately excluded from the testing sample, such as those with disabilities, were disproportionately selected (oversampled) for the transcript components, and additional information collected about these students' disabilities. Inclusion of NAEP test-excluded students in the transcript studies also provides representation for language barrier ineligibles. The 1990 high school transcript study requested transcripts for both participating and nonparticipating NAEP sample members and excluded students (4.2 percent of seniors were excluded from the 1990 NAEP testing sample for reasons of mental, physical, or linguistic barriers to participation).

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[6] The distribution of these classifications in the school population may be the source of additional subgroup biases. For example, base year ineligibles differ from the eligible sample in terms of race/ethnicity (for example, disproportionate numbers of Hispanics), gender (disproportionate numbers of males), and behavioral characteristics, (for example, a much higher dropout rate).

[7] In the base year, 5.4% of the potential sample was excluded (since some excluded students proved, upon investigation, not to have been 1987-88 eighth graders, the apparent 5.4% rate in fact slightly overstates the proportion excluded). By the time of the second follow-up transcript study in 1992, over half of the excluded students had been reclassified as eligible for NELS:88.

While the NELS:88 transcript component provides extended coverage of the population of eligible and ineligible 1992 seniors, there is some sample undercoverage of the eighth- and tenth-grade cohorts, as documented in Chapter III and Appendix N of this manual. Participation in special education or bilingual education is specifically noted in the NELS:88 transcript data (flag F2RSPFLG); English as a Second Language courses have distinct CSSC codes.

A more difficult case is the HS&B transcript study, insofar as undercoverage in HS&B--primarily of students with disabilities, secondarily of students with limited English language proficiency--is not well documented. (For example, unknown numbers of students with disabilities were excluded; others were included, but not identified as disabled in a way comparable to the NAEP procedure.)[8] It may therefore be useful to provide an example to show how the HS&B secondary transcript data can be manipulated to facilitate comparisons with NAEP for this category of students. Hoachlander dealt with the comparability problem in the following way (see Hoachlander, 1991, Appendix A). A fraction of disabled students is included in HS&B; another fraction is excluded, usually those with more severe disabilities. Because the HS&B transcript study contains records for dropouts and repeating students who did not graduate with their classmates and whose transcripts were therefore incomplete, Hoachlander limited comparison to high school graduates. A second condition was set as well--comparison students must have completed between 16 and 32 total Carnegie Units. Hoachlander remarks:

> These sample restriction rules also had the advantage of eliminating most of the moderately and severely handicapped graduates from the NAEP sample. When we examined the disabilities of the handicapped students remaining in the NAEP sample after the imposition of these rules, we found most of them to be only mildly learning disabled, mildly emotionally disabled, or mildly retarded. Given the rigor of the HS&B questionnaire, these are the kinds of disabled students who would most likely have been selected to participate yet not identified as handicapped. Altogether, the handicapped students remaining in the NAEP sample after the imposition of the sample restrictions accounted for about 3 percent of the total population of graduates. This approach to making the samples consistent proved to be a simple solution to the problems posed by the inclusion of handicapped students in HS&B without their having been identified as such.

For the 1982-1990 tabulations of credits earned (Legum et al., 1993), analysis was restricted to NAEP transcript sample members who had not participated in special education programs.

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[8] HS&B provided for questionnaire self-identification of handicapped students; in NELS:88, eligible students with disabilities were identified (in the base year, hence for the eighth grade cohort only) by parents, while schools identified handicapped students who were ineligible to participate. In the NAEP High School Transcript Studies, handicapped students were defined as those for whom the school had on file a special education IEP (Individualized Educational Program). HS&B student self-reports of handicap status were not highly stable over time (see Owings and Stocking, 1985). Transcript data on participation in special education programs serves as an additional identifier of handicap status (4.3% of the NELS:88 sample participated in special education programs, according to their transcripts, and 1.6% in bilingual education). For the NELS:88 transcript component, special education courses were coded in conformity with the specifications of the 1987 and 1990 transcript studies, which were more detailed than those of HS&B, though without a seventh-digit code extension (see 4.4.2 in this manual).

Representative Populations. There are four basic questions to be asked about the NCES academic transcript studies in terms of their degree of representativeness of various national populations. These questions are:

1) Was the school sample nationally representative?

2) Is the within-school student sample representativeness of an age or grade cohort within the school?

3) Was the student sample nationally representative?

4) Of what was it representative?

We shall answer each of these questions in turn.

1) Was the school sample nationally representative? HS&B and the NAEP transcript studies were based on national probability samples of high schools. The *HS&B* school sample is representative of the nation's high schools in 1980. Technically it is not representative of the nation's schools in 1982 since new high schools came into existence and some 1980 schools merged and closed. Given the low rate of such change over a two year period, the 1982 HS&B schools are a close approximation of a national probability sample of schools. It should also be remembered that transcripts are inherently longitudinal--they span the several years of the high school career from 1979 or 1980 to 1982. Hence the HS&B transcript study may best be described as a collection of the high school records of a representative sample of the nation's 1980 sophomores from within a nationally representative sample of 1980 high schools.

The *1987 NAEP transcripts* are based on the nationally representative school sample of the 1986 NAEP. This point of perfect school representativeness falls midway in the transcript record, with the 1986 sample a good approximation to the nation's schools in 1985 or 1987. The *1990 NAEP transcript study* is a nationally representative sample of schools derived from the 1990 NAEP sample. However, while the NAEP sample frame included all schools teaching grade 12 or having 17-year-old students (that is, individuals born in 1972) in the 1989-90 school year, the transcript study was restricted to schools with twelfth grades.

The *NELS:88* high school sample is not nationally representative. It represents the schools to which a national probability sample of eighth graders had dispersed two and four years later.

2) Is the within-school student sample representative of an age or grade cohort within the school? The *HS&B* sample is fully representative of sophomores in the HS&B school in the spring term of the 1979-80 school year. It not fully representative thereafter, because transfers into the school had no chance of selection into the HS&B follow-up sample. (Though transfers into HS&B schools are not represented in the 1982 survey, HS&B maintained a representative student sample overall by following transfers out of the HS&B schools.)

The *1987 high school transcript* sample originated in a within-school representative sample of the school's juniors/17-year-olds (that is, students born between October 1, 1968 and September 30, 1969). However, subsequent transfers into the school were given no chance of selection into the study; this fact qualifies the representative of the within-school sample of the graduating class of 1987.

The *1990 high school transcript* sample originated within the 1990 NAEP sample of seniors/17-year-olds, but is further restricted to the grade cohort of seniors who in fact graduated in calendar 1990. As such it provides a representative sample of each high school's 1990 graduates.

NELS:88 in-school samples are not necessarily representative of seniors or graduating seniors within the NELS:88 schools, since, among other reasons, non-NELS:88 eighth grades as well as NELS:88 eighth grades may have fed the school.

3) Was the student sample nationally representative? All four studies provide nationally representative samples of public and private school students. However, there are some differences in the precise populations that are represented, as detailed in (4) below.

4) Of what was it representative? Table 2 summarizes the analysis populations associated with the various transcript samples:

Table 2: Analysis populations for transcript studies

Study:	The high school careers of (population):
HS&B 1982	the nation's 1980 sophomores
NAEP 1987	1985-1986 juniors who remained in their 1985-86 schools and graduated in academic year 1986-1987
NAEP 1990	graduating seniors in calendar 1990
NELS:88 1992	1. seniors in spring term 1992 2. graduating seniors in the 1991-92 academic year 3. the 1990 sophomore cohort 4. the 1988 eighth-grade cohort

HS&B is a nationally representative sample of 1980 sophomores, and of the 1980 sophomore cohort two years later (in 1982) when the HS&B transcript survey was conducted for a subsample of the sophomore cohort. Technically, the study imperfectly represents the nation's 1982 graduating seniors, since 1982 seniors who were not sophomores in 1980 are not represented in the sample. However, analysts can make adjustments for unrepresented seniors by modeling the characteristics of high school graduates who take more than the standard four (or three) years to complete.

The *1987 High School Transcript Study* represents an augmented sample of participants in the 1986 NAEP who were enrolled in the 11th grade and/or were 17 years old and who successfully completed their graduation requirements prior to fall 1987. While this sample is dominantly 1985-86 juniors, no attempt was made to follow individuals who left the school through transfer or dropping out, nor were juniors/seniors who transferred into the school after NAEP sampling included. In addition, 1987 graduating seniors who were not 1986 juniors had no chance of selection into the study. This sample therefore only approximates the high school graduating class of 1987.

The *1990 High School Transcript Study* is a representative sample of graduating seniors from the NAEP sample (participants, nonparticipants, and excluded students) in twelfth grade in the 1989-90 school year. As in the 1987 study, students who transferred out, failed to graduate on time, or who received GEDs, were excluded.

The *NELS:88 transcript survey* represents several populations. *First*, it represents the nation's high school seniors in the spring term of 1992. To make comparisons, say to the NAEP 1990 sample, one must select only those NELS:88 senior cohort members who in fact graduated from high school with their class.

Second, the NELS:88 transcript survey represents the nation's 1990 sophomores two years later. The sophomore cohort two years later includes both students and dropouts. NELS:88 transcript data can also be used cross-sectionally by generalizing about the sophomore cohort in spring term 1990 using transcript data from the 1989-90 school year.

Third, the NELS:88 transcript survey represents the nation's 1988 eighth graders four years later. Again, this population includes dropouts, early graduates, students who graduated in 1992, and students who failed to graduate with their class.

For purposes of intercohort comparison, however, analysis populations of interest are likely to be somewhat more limited. Table 3 indicates principal cross-cohort comparisons employing NELS:88, HS&B, and NAEP (1987 and 1990) high school transcripts.

Table 3: NELS:88 cross-cohort transcript analysis populations

Comparisons	Special Notes
Sophomore Cohorts (1980, 1990) Two Years Later	1. Includes dropouts and students. 2. All 1982 HS&B sample members were 1980 sophomores; for NELS:88, select using G10COHRT flag. 3. To determine NELS:88 dropouts, use F2DOSTAT.[9] To determine HS&B *questionnaire-defined* dropouts, use FUSTTYPE. FUSTTYPE=2 includes dropouts receiving no instruction and individuals in non-diploma alternative instruction and is equivalent to F2DOSTAT=3, 4, 5. To remove GED/alternative students from NELS:88 do not invoke F2DOSTAT=3; to remove the GED group from HS&B requires further manipulation of HS&B variables not on the transcript file (see Ingels & Dowd 1994 or dropout component user manual).
High School Careers of Graduating Seniors (1982, 1987, 1990, 1992)	1. Compare all or any combination. 2. 1987 sample is of 1986 juniors who graduated in 1987; 1982 sample is 1980 sophomores who graduated in 1982; for NELS:88, determine graduating seniors through F2RTROUT; for HS&B use RESNLEFT in conjunction with YEARLEFT; for 1987 NAEP, employ the variable EXSTAT. NAEP 1990 files contain graduating seniors only.

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[9] For HS&B, FUSTTYPE, and for NELS:88, F2DOSTAT, were imported into the transcript file from the student and dropout questionnaire files. F2DOSTAT characterizes the status of both participants and nonparticipants. Transcript data are missing for some dropout questionnaire completers, and transcript data are available for some dropout survey nonparticipants. In addition, there are some cases of disagreement between transcript-reported outcomes and F2DOSTAT. (Consistency has not been forced between the multiple dropout indicators in the NELS:88 database; for the parallel case of HS&B, see the various dropout indicators contained in TRSTYPE). Finally, 87 individuals appear on the transcript file with an imputed spring term 1992 dropout status (left school, receiving no alternative instruction and have not received equivalency certification); these individuals were survey nonparticipants and were therefore not weighted as dropouts for purposes of a final weight in the student and dropout components, but do have a transcript weight. In order to generate precise spring term 1992 dropout population estimates using F2TRSCWT, it is therefore necessary to employ F2RWTST to identify dropouts. The definitional mapping between F2RWTST and F2DOSTAT is: F2RWTST 3 = F2DOSTAT 3, 4, or 5. For a full accounting in accordance with student survey enrollment dispositions for the transcript file, see the universe variable F2UNIV2D; for transcript-reported dropout status see F2RTROUT or F2RREASL.

Sample Sizes. There are differences in sample sizes across the studies, and marked differences in the distribution of transcript-eligible students across schools. For example, HS&B collected 15,941 transcripts from 1,720 schools.[10] In contrast, the NAEP 1987 study collected more than twice as many transcripts (over 34,000) from a quarter as many schools (433). For the four academic transcript studies, numbers of schools providing data and numbers of transcripts obtained are summarized in Table 4.

Table 4: Participating school and student Ns for HS&B, NAEP, and NELS:88 high school transcript studies

	STUDENTS	SCHOOLS	AVERAGE *N* PER SCHOOL
HS&B:	15,941	1720	9.3
NAEP 1987:	34,140	433	78.8
NAEP 1990:	21,531	330	65.2
NELS:88:	17,285	1543	11.2

Completeness of the High School Record. The longitudinal studies (HS&B, NELS:88) followed a pre-senior cohort, collecting transcripts at the point at which sample members in modal grade progression had just completed their senior year. A fundamental difference between the HS&B and NELS:88 transcript studies and the NAEP high school transcript studies is that in the 1987 and 1990 NAEP records collections, transcripts of students who were still enrolled in school, dropouts, transfers, and individuals who received GEDs were excluded from the study, while in HS&B and NELS:88 they were included.

Owing to the fact that some HS&B and NELS:88 sample members had fallen behind the modal sequence for their cohort, and that others had dropped out of school, school records for these individuals necessarily span less than a full high school career (for NELS:88, senior year transcripts are available for 14,789 of the 17,285 transcript participants). The tendency to take more than four years to complete high school (or to drop out) is not randomly distributed, but rather, is associated with specific sociodemographic characteristics, hence a potential source of bias, particularly for certain kinds of subgroup investigations.[11]

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[10] The target sample comprised 18,427 members of the sophomore cohort in 1,899 schools (the HS&B regular sample of about 1,000 schools, plus another 900 schools to which sophomores had transferred since the 1980 base year).

[11] For example, Hayward and Thorne (1990) report that only 68 percent of disabled (compared to 87 percent of nondisabled) students graduate on time.

Another source of incomplete school records in HS&B and NELS:88 arises from the fact that longitudinal cohort members often changed schools between the time they entered high school and the autumn 1992 transcript data collection. While every attempt was made to collect transcripts from all secondary schools an individual had attended, both HS&B and NELS:88 experienced lower cooperation rates from the high schools that were not part of their regular sample, with the result that transcripts for transfer students are more likely to be incomplete than collections based on graduating seniors.

Other Differences of Note.

Course Offerings File. For HS&B and the 1987 and 1990 NAEP studies, course titles and their CSSC codes for all offerings recorded in the school's course catalogue are available in a separate data file that can be used in conjunction with transcript data. For NELS:88, a course offerings file is in preparation for a subset of the NELS:88 1990-92 schools that are part of the School Effectiveness Study. There will also be a separate transcript file for the NELS:88 School Effectiveness Study. For this component, students were added to a subsample of urban and suburban NELS:88 schools in the 30 largest MSAs, to provide representative and robust within-school student samples, for the study of school effects. A weight will be available for School Effectiveness Study schools.

Definition of a Senior. There is a difference between comparing seniors in a given academic year, and comparing graduates in that year. NLS-72, HS&B in 1980, and NELS:88 in 1992 provide senior cohorts, not all members of which succeeded in meeting graduation requirements. There is also a difference between looking at graduates within an academic year (say 1989-90 or 1991-92) and within a calendar year. Some of these differences may need to be taken into account in comparative analyses. The transcript data sets generally provide information about both the date and the reason for leaving the school so that commonality of unit of analysis--for example, graduates as of a certain time point--can be maintained.

Identification of Seniors and of Graduating Seniors. In HS&B, the 1980 sophomore cohort was not freshened to create a representative 1982 senior cohort; moreover, dropouts and non-seniors are included on the transcript files. However, students were asked on the student questionnaire what grade they were in, and course-taking histories appear in the transcripts. Graduating seniors (12,738 of the 15,941 transcript cases) can be identified by the "reason left school" variable on the transcript file; date of separation from the school is also provided ("month left" and "year left" are provided). NELS:88 defined the senior cohort as all students enrolled in twelfth grade in the spring term of the 1992 school year; a special flag marks members of the senior cohort. Some members of the senior class fail to graduate. As in HS&B, these individuals can usually be identified in the transcript file, which includes a "transcript-indicated outcome" variable (F2RTROUT) that differentiates between dropouts, individuals who are still enrolled, and spring 1992, other 1992, and pre-1992 graduates. NELS:88 mailed transcript requests in mid-August, 1992. Although numbers of late year graduates are usually quite small, given the data collection schedule, graduation information may have been missed for some NELS:88 sample members graduating in the last quarter of calendar 1992. The HS&B transcript study was conducted within a similar time frame and limitations.

Seniors were not, technically speaking, the focus of the 1987 NAEP study, for which the population of interest was students enrolled in 11th grade and/or 17 years old in the 1985-86 school year who had remained in their schools for the 1986-87 school year and had become part of the high school graduating class of 1987. Transcripts were collected in October and November of 1987. Student exit status is provided on the file.

The 1990 NAEP sample was specifically limited to graduating seniors--a senior was defined as anyone graduating between January 1 and December 31, 1990 (data were not collected until 1991). The 1990 transcript files also give month of graduation; only a handful of cases (16) occur in the last quarter of the year--these may be excluded for comparative purposes if the analyst so wishes, although such a small number of cases is likely to have but a trivial impact on results.

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CROSSWALK FOR 1992 NELS:88, 1987 AND 1990 NAEP, AND 1982 HS&B TRANSCRIPT VARIABLES

The table below lists all 1992 NELS:88 student and course-level transcript variables, including transcript-derived composite variables. Non-transcript composite variables included on the student file and identificatory items (e.g., student ID) are not included. In the right hand columns, the names of comparable variables included on 1990 and 1987 NAEP and 1982 HS&B transcript study files are provided. A shaded cell indicates that a comparable variable was not included on the files for the particular study. Some variables listed are only partially comparable, and analysts should carefully assess the differences in relation to their research question(s). A few 1992 NELS:88 variables superficially resemble variables included in previous transcript studies, but are not comparable to those items; such cases are footnoted.

STUDENT-LEVEL ITEMS

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RAB88[1]	NUMBER OF DAYS ABSENT DURING 88-89 SCHOOL YEAR	ABS09		DAYABYR1
F2RAB89	NUMBER OF DAYS ABSENT DURING 89-90 SCHOOL YEAR	ABS10		DAYABYR2
F2RAB90	NUMBER OF DAYS ABSENT DURING 90-91 SCHOOL YEAR	ABS11		DAYABYR3
F2RAB91	NUMBER OF DAYS ABSENT DURING 91-92 SCHOOL YEAR	ABS12		DAYABYR4
F2RSPFLG	PARTICIPATION IN SPECIALIZED COURSES OR PROGRAMS.	HCFLAG[2]	HCFLAG	ENROLLED
F2RRANK	CLASS RANK FOR LAST YEAR ATTENDED	CLRANK		CLASRANK
F2RCSIZE	CLASS SIZE FOR LAST YEAR ATTENDED	CLSIZE		CLASSIZE
F2RDTLMO	MONTH STUDENT LEFT SCHOOL	GRADMO		MONLEFT

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[1] Note that in the 1992 NELS:88 transcript study, school years are specified for absenteeism. The 1990 NAEP study provides absence information by grade level, while the 1982 HS&B transcript file reports absenteeism by year of high school.

[2] The 1987 and 1990 NAEP variable HCFLAG indicates whether the student was enrolled in a special education program. The 1992 NELS:88 item F2RSPFLG and the equivalent 1982 HS&B item (ENROLLED) indicate enrollment in special, gifted, or bilingual education courses or programs.

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RDTLYR	YEAR STUDENT LEFT SCHOOL	GRADDY		YEARLEFT
F2RREASL	REASON STUDENT LEFT SCHOOL	EXSTAT	EXSTAT	RESNLEFT
F2RRLVRB	VERBATIM OTHER REASON FOR LEAVING SCHOOL			
F2RGPA	CUMULATIVE GPA FOR LAST YEAR ATTENDED	GPA		GPA
F2RPSATM	PRELIMINARY SCHOLASTIC APTITUDE TEST (MATHEMATICS)			PSATM
F2RPSATV	PRELIMINARY SCHOLASTIC APTITUDE TEST (VERBAL)			PSATV
F2RSATM	SCHOLASTIC APTITUDE TEST (MATHEMATICS)			SATM
F2RSATV	SCHOLASTIC APTITUDE TEST (VERBAL)			SATV
F2RACTC[3]	AMERICAN COLLEGE TEST (COMPOSITE SCORE)			
F2RACTE	AMERICAN COLLEGE TEST (ENGLISH SCORE)			
F2RACTM	AMERICAN COLLEGE TEST (MATH SCORE)			
F2RACTR	AMERICAN COLLEGE TEST (READING SCORE)			
F2RACTS	AMERICAN COLLEGE TEST (SCIENCE REASONING SCORE)			
F2RAPBIO[4]	ADVANCED PLACEMENT TEST SCORE - BIOLOGY			APTEXM10
F2RAPCHE	ADVANCED PLACEMENT TEST SCORE - CHEMISTRY			APTEXM11
F2RAPCGP	ADVANCED PLACEMENT TEST SCORE - COMPARATIVE GOVERNMENT AND POLITICS			

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[3] ACT scores were collected in the 1982 HS&B transcript study. However, modifications to the American College Test in the intervening years render the HS&B items not strictly comparable to the NELS:88 items.

[4] Several additional AP tests have been created since the 1982 HS&B transcript study. One test offered in 1982, in German literature, was not offered in 1992.

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RAPCSA	ADVANCED PLACEMENT TEST SCORE - COMPUTER SCIENCE A			
F2RAPCSB	ADVANCED PLACEMENT TEST SCORE - COMPUTER SCIENCE AB			
F2RAPLIT	ADVANCED PLACEMENT TEST SCORE - ENGLISH LITERATURE AND COMPOSITION			APTEXAM4
F2RAPLAN	ADVANCED PLACEMENT TEST SCORE - ENGLISH LANGUAGE AND COMPOSITION			APTEXAM5
F2RAPEUH	ADVANCED PLACEMENT TEST SCORE - EUROPEAN HISTORY			APTEXAM7
F2RAPFLA	ADVANCED PLACEMENT TEST SCORE - FRENCH LANGUAGE			APTEXM15
F2RAPFLI	ADVANCED PLACEMENT TEST SCORE - FRENCH LITERATURE			APTEXM16
F2RAPGER	ADVANCED PLACEMENT TEST SCORE - GERMAN LANGUAGE			APTEXM19
F2RAPHAR	ADVANCED PLACEMENT TEST SCORE - HISTORY OF ARTS			APTEXM23
F2RAPLCA	ADVANCED PLACEMENT TEST SCORE - LATIN/CATULLUS - HORACE			APTEXM22
F2RAPLVE	ADVANCED PLACEMENT TEST SCORE - LATIN/VIRGIL			APTEXM21
F2RAPMAC	ADVANCED PLACEMENT TEST SCORE - MACROECONOMICS			
F2RAPCAB	ADVANCED PLACEMENT TEST SCORE - MATHEMATICS - CALCULUS BC			APTEXAM9
F2RAPCAA	ADVANCED PLACEMENT TEST SCORE - MATHEMATICS - CALCULUS AB			APTEXAM8
F2RAPMIC	ADVANCED PLACEMENT TEST SCORE - MICROECONOMICS			
F2RAPMLL	ADVANCED PLACEMENT TEST SCORE - MUSIC LISTENING AND LITERATURE			APTEXM26

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RAPMT	ADVANCED PLACEMENT TEST SCORE - MUSIC THEORY			APTEXM27
F2RAPPB	ADVANCED PLACEMENT TEST SCORE - PHYSICS B			APTEXM12
F2RAPPCE	ADVANCED PLACEMENT TEST SCORE - PHYSICS C - E & M			APTEXM14
F2RAPPCM	ADVANCED PLACEMENT TEST SCORE - PHYSICS C - MECHANICS			APTEXM13
F2RAPPSY	ADVANCED PLACEMENT TEST SCORE - PSYCHOLOGY			
F2RAPSLA	ADVANCED PLACEMENT TEST SCORE - SPANISH LANGUAGE			APTEXM17
F2RAPSLI	ADVANCED PLACEMENT TEST SCORE - SPANISH LITERATURE			APTEXM18
F2RAPSAG	ADVANCED PLACEMENT TEST SCORE - STUDIO ART - GENERAL			APTEXM24
F2RAPSAD	ADVANCED PLACEMENT TEST SCORE - STUDIO ART - DRAWING			APTEXM25
F2RAPUSG	ADVANCED PLACEMENT TEST SCORE - UNITED STATES GOVERNMENT AND POLITICS			
F2RAPUSH	ADVANCED PLACEMENT TEST SCORE - UNITED STATES HISTORY			APTEXAM6
F2RTR09	GRADE 9 DATA AVAILABLE			
F2RTR10	GRADE 10 DATA AVAILABLE			
F2RTR11	GRADE 11 DATA AVAILABLE			
F2RTR12	GRADE 12 DATA AVAILABLE			
F2RTROUT	TRANSCRIPT-INDICATED OUTCOME			
F2RTRPRG	TRANSCRIPT-INDICATED HIGH SCHOOL PROGRAM	ACAD_TRK		

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RNWB1A	NEW BASICS - 4E+3SS+3S+3M+.5CS+2FL (HS&B-EQUIVALENT)			
F2RNWB2A	NEW BASICS - 4E+3SS+3S+3M+.5CS (HS&B-EQUIVALENT)			
F2RNWB3A	NEW BASICS - 4E+3SS+3S+3M+2FL (HS&B-EQUIVALENT)			
F2RNWB4A	NEW BASICS - 4E+3SS+3S+3M (HS&B-EQUIVALENT)			
F2RNWB5A	NEW BASICS - 4E+3SS+2S+2M (HS&B-EQUIVALENT)			
F2RNWB1B	NEW BASICS - 4E+3SS+3S+3M+.5CS+2FL (NAEP-EQUIVALENT)	STUB2001		
F2RNWB2B	NEW BASICS - 4E+3SS+3S+3M+.5CS (NAEP-EQUIVALENT)	STUB2002		
F2RNWB3B	NEW BASICS - 4E+3SS+3S+3M+2FL (NAEP-EQUIVALENT)	STUB2003		
F2RNWB4B	NEW BASICS - 4E+3SS+3S+3M (NAEP-EQUIVALENT)	STUB2004		
F2RNWB5B	NEW BASICS - 4E+3SS+2S+2M (NAEP-EQUIVALENT)	STUB2005		
F2RHEN_C	TOTAL CARNEGIE UNITS IN ENGLISH (HS&B)			
F2RHMA_C	TOTAL CARNEGIE UNITS IN MATHEMATICS (HS&B)			
F2RHSC_C	TOTAL CARNEGIE UNITS IN SCIENCE (HS&B)			
F2RHSO_C	TOTAL CARNEGIE UNITS IN SOCIAL STUDIES (HS&B)			
F2RHCO_C	TOTAL CARNEGIE UNITS IN COMPUTER SCIENCE (HS&B)			
F2RHFO_C	TOTAL CARNEGIE UNITS IN FOREIGN LANGUAGES (HS&B)			
F2RHENG2	AVERAGE GRADE IN ENGLISH (HS&B)			
F2RHMAG2	AVERAGE GRADE IN MATHEMATICS (HS&B)			
F2RHSCG2	AVERAGE GRADE IN SCIENCE (HS&B)			
F2RHSOG2	AVERAGE GRADE IN SOCIAL STUDIES (HS&B)			

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RENG_C	TOTAL CARNEGIE UNITS IN ENGLISH (NAEP)	STUB0100		
F2RFOR_C	TOTAL CARNEGIE UNITS IN FOREIGN LANGUAGES (NAEP)	STUB0600		
F2RMAT_C	TOTAL CARNEGIE UNITS IN MATHEMATICS (NAEP)	STUB0300		
F2RAL1_C	TOTAL CARNEGIE UNITS IN ALGEBRA I (NAEP)	STUB0301		
F2RAL2_C	TOTAL CARNEGIE UNITS IN ALGEBRA II (NAEP)	STUB0302		
F2RGEO_C	TOTAL CARNEGIE UNITS IN GEOMETRY (NAEP)	STUB0303		
F2RTRI_C	TOTAL CARNEGIE UNITS IN TRIGONOMETRY (NAEP)	STUB0304		
F2RPRE_C	TOTAL CARNEGIE UNITS IN PRE-CALCULUS (NAEP)	STUB0305		
F2RCAL_C	TOTAL CARNEGIE UNITS IN CALCULUS (NAEP)	STUB0306		
F2ROMA_C	TOTAL CARNEGIE UNITS IN OTHER MATHEMATICS COURSES (NAEP)			
F2RSCI_C	TOTAL CARNEGIE UNITS IN SCIENCE (NAEP)	STUB0500		
F2REAR_C	TOTAL CARNEGIE UNITS IN EARTH SCIENCE (NAEP)			
F2RBIO_C	TOTAL CARNEGIE UNITS IN BIOLOGY (NAEP)	STUB0501		
F2RCHE_C	TOTAL CARNEGIE UNITS IN CHEMISTRY (NAEP)	STUB0503		
F2RPHY_C	TOTAL CARNEGIE UNITS IN PHYSICS (NAEP)	STUB0505		
F2ROSC_C	TOTAL CARNEGIE UNITS IN OTHER SCIENCE COURSES (NAEP)			
F2RSOC_C (NAEP)	TOTAL CARNEGIE UNITS IN SOCIAL STUDIES (NAEP)	STUB0200		
F2RHIS_C	TOTAL CARNEGIE UNITS IN HISTORY (NAEP)	STUB0210		
F2ROSO_C	TOTAL CARNEGIE UNITS IN OTHER SOCIAL STUDIES COURSES (NAEP)	STUB0220		

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RCOM_C	TOTAL CARNEGIE UNITS IN COMPUTER SCIENCE/PROGRAMMING/DATA (NAEP)	STUB0400		
F2RVAG_C	TOTAL CARNEGIE UNITS IN AGRICULTURE (NAEP)	STUB0802		
F2RVBU_C	TOTAL CARNEGIE UNITS IN BUSINESS (NAEP)	STUB0803		
F2RVGN_C	TOTAL CARNEGIE UNITS IN GENERAL INTRODUCTORY VOCATIONAL COURSES (NAEP)	STUB0801		
F2RVHE_C	TOTAL CARNEGIE UNITS IN HEALTH AND HUMAN RESOURCES (NAEP)	STUB0805		
F2RVHO_C	TOTAL CARNEGIE UNITS IN VOCATIONAL HOME ECONOMICS (NAEP)	STUB0806		
F2RVMA_C	TOTAL CARNEGIE UNITS IN MARKETING AND DISTRIBUTION (NAEP)	STUB0804		
F2RVTE_[5]C	TOTAL CARNEGIE UNITS IN TECHNICAL (NAEP)	STUB0808		
F2RVTR_C	TOTAL CARNEGIE UNITS IN TRADE AND INDUSTRY (NAEP)	STUB0807		
F2R01_C - F2R56_C	CSSC SUBJECT AREA SUMMARY COMPOSITES			
F2RCRLST	COURSE LISTING USED IN CODING			NOCAT

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[5] *These variables may appear to be comparable to COURS01 through COURS52, included on the 1982 HS&B transcript file. However, the 1992 NELS:88 items consist of counts of Carnegie units in the CSSC subject ares, while the 1982 HS&B items are counts of courses (course records), not units, in the subject areas.*

COURSE-LEVEL ITEMS

1992 NELS:88 VARIABLE NAME	NELS:88 VARIABLE LABEL	NAMES OF COMPARABLE NAEP AND HS&B VARIABLES		
		1990 NAEP	1987 NAEP	1982 HS&B
F2RDIFSC	COURSE TAKEN AT SCHOOL OTHER THAN LAST ATTENDED SCHOOL	TRANSFER		
F2RYEAR	SCHOOL YEAR IN WHICH COURSE WAS TAKEN	YEARSPAN	YEARSPAN	YEAR
F2RGRLEV	GRADE LEVEL IN WHICH COURSE WAS TAKEN	GRADLEV	GRADLEV	
F2RCRSDP[6]	DEPARTMENT OF COURSE			
F2RCRSE	COURSE TITLE	CRSENAME	CRSENAME	
F2RCRSNO	SCHOOL-ASSIGNED COURSE NUMBER			
F2RT_TYP	TERM IN WHICH COURSE WAS TAKEN			
F2RCRED	SCHOOL-ASSIGNED COURSE CREDITS	RAWCRED	RAWCRED	
F2RSCRED	STANDARDIZED CREDITS, IN CARNEGIE UNITS	CRSECARN	CRSECARN	CREDIT
F2RGRADE	STANDARDIZED COURSE GRADE	STDGRAD	STDGRAD	GRADE
F2RCSSC	CSSC CODE	CRSECSSC	CRSECSSC	COURSE

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[6] *In the 1982 HS&B transcript study, 10 separate flags were used to indicate term type. Together, these flags are comparable to F2RT_TYP.*

Appendix B

Transcript Survey

Data Collection Materials

NELS:88 SCHOOLS

August 12, 1992

Dear Principal:

When making preparations for the student survey last year, your NORC representative discussed with you an important component of the National Education Longitudinal Study of 1988 (NELS:88) Second Follow-Up--the Student Transcript Survey. For this survey we are currently collecting transcripts for all NELS:88 sample members, most of whom were in the twelfth grade during the 1991-92 school year. I am writing to request your help in this final NELS:88 data collection effort.

As you already know, NELS:88 is conducted by the National Opinion Research Center (NORC) at the University of Chicago in behalf of the U.S. Department of Education. The Department of Education's longitudinal studies program is authorized by the General Education Provisions Act. NELS:88 has been endorsed by the American Association of School Administrators, the National Association of School Boards, the National Association of Principals, and the Education Information Advisory Council (EIAC) of the Council of Chief State School Officers.

The purpose of NELS:88 is to provide data that will be used by Congress, researchers, and educators to better understand and ultimately improve education in America. The study will provide valuable information on how student background, home environment, school experiences, and family involvement in education affect educational and career outcomes. The collection of **high school transcripts** for sample members will furnish objective and reliable measures of important aspects of students' educational experiences, including course-taking patterns, curriculum exposure, and educational outcome as measured by final grades. When merged with information provided by students and their parents and teachers since 1988, transcript data will form part of a rich database that can be used to explore complex educational processes.

Let me assure you that, as required by Federal regulations and professional survey ethics, **all information provided by or about NELS:88 sample members is held in complete confidence.** Individual schools and students will not be identifiable, since results will be presented only in statistical form. NORC has painstakingly safeguarded respondent confidentiality throughout its fifty years of existence.

NELS:88 re

Enclosed you will find all the materials needed to process our request, including:

- A list of the NELS:88 sample members who attended your school and a program identification sheet,
- Instructions for preparing the transcripts package and cover sheet,
- A copy of a disclosure notice to place in each student's file (a copy of 34 CFR 99.31, which authorizes the release of student records to NELS:88, is enclosed for your reference)
- A Reimbursement Request Form (reimbursement of up to $1.50 per transcript is available; simply complete and submit this form with the transcripts),
- A prepaid envelope in which to return transcripts to NORC.

We would appreciate your assigning a staff member to this task and forwarding this packet to that staff member as soon as possible. The return of transcripts within the next week would also be appreciated, so that we can maintain our data processing schedule. If you or your staff have any questions about this request for transcripts, please call John Taylor at 1-800-578-7309. Mr. Taylor is also available to discuss any special accommodations your school may need to fulfill the request.

Thank you for your continued support of and participation in NELS:88. The student, teacher, and school administrator surveys have been unqualified successes, as the transcript survey undoubtedly will be with the help of schools like yours across the country.

Sincerely,

Steven J. Ingels, Ph.D.
NELS:88 Project Director

NON-NELS:88 SCHOOLS

September 25, 1992

Dear PRINCIPAL~:

I am writing to request your help in the final data collection effort for the National Education Longitudinal Study of 1988 (NELS:88) Second Follow-Up: the Student Transcript Survey. According to our records based on student reports, one or more students selected for NELS:88 attended your school sometime between the spring of 1988 and the spring of 1992. We are currently collecting high school transcripts for these students.

NELS:88 is conducted by the National Opinion Research Center (NORC) at the University of Chicago on behalf of the U.S. Department of Education. The Department of Education's longitudinal studies program is authorized by the General Education Provisions Act. The study has been endorsed by the American Association of School Administrators, the National Association of School Boards, the National Association of Principals, and the Education Information Advisory Council (EIAC) of the Council of Chief State School Officers.

NELS:88 began four years ago with a survey of over 25,000 eighth graders randomly selected from public and private schools. Students were surveyed again in 1990 and in the spring of this year as part of the Second Follow-Up survey, when the majority were in the twelfth grade. The purpose of NELS:88 is to collect information that will be used by Congress, researchers, and educators to better understand and ultimately improve education in America. The study will provide valuable information on how student background, home environment, school experiences, and family involvement in education affect educational and career outcomes. An overview of the study is enclosed.

The collection of **high school transcripts** for sample members will furnish objective and reliable measures of important aspects of students' educational experiences, including course taking patterns, curriculum exposure, and educational outcome as measured by final grades. When merged with information provided by students and their parents and teachers since 1988, transcript data will form part of a rich database that can be used by educators, researchers, and policymakers to explore complex educational processes.

The scope of your school's involvement in NELS:88 would be limited to providing transcripts for the handful of study participants enrolled in your school. Let me assure you that, as required by Federal regulations and professional survey ethics, **all information provided by or about NELS:88 sample members is held in complete confidence**. Individual schools and students will not be identifiable, since results will be presented only in statistical form. NORC has painstakingly safeguarded respondent confidentiality throughout its fifty years of existence.

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- A Reimbursement Request Form (reimbursement of up to $1.50 per transcript is available; simply complete and submit this form with the transcripts),
- A prepaid envelope in which to return transcripts to NORC.

We would appreciate your assigning a staff member to this task and forwarding this packet to that staff member as soon as possible. The return of transcripts within the next week would also be appreciated, so that we can maintain our data processing schedule. If you or your staff have any questions about this request for transcripts, please call John Taylor at 1-800-578-7309. Mr. Taylor is also available to discuss any special accommodations your school may need to fulfill the request.

Your school's participation in the transcript survey is vital to the continuing success of NELS:88. Thank you for your cooperation. We look forward to hearing from you.

Sincerely,

Steven J. Ingels, Ph.D.
NELS:88 Project Director

NORC/4521
7/92

INSTRUCTIONS FOR PREPARING STUDENT TRANSCRIPTS

NELS:88 SECOND FOLLOW-UP

PLEASE RETURN A COPY OF YOUR SCHOOL'S COURSE CATALOG OR OTHER DESCRIPTIVE COURSE LIST (PREFERABLY FROM 1991-92) WITH THE TRANSCRIPTS. THE CATALOG WILL HELP US ANALYZE THE TRANSCRIPTS.

Please follow the instructions below when completing and returning the enclosed Transcript Survey documents.

1. Review the Student Checklist. The checklist includes the names and dates of birth (if known) of all students for whom we would like high school transcripts. Most of these students were in the twelfth grade during the 1991-92 school year. Some, however, may be early graduates or out-of-sequence (in the eleventh or an earlier grade), or may have dropped out of school. Students known to be early graduates or dropouts are identified in the **Enrollment Status** column. For dropouts, withdrawal dates are also given, to help you locate student records. Any student who refused us permission to request his/her transcript has been excluded from this list.

If a student on the checklist transferred to another school, please return any transcript for the student that your school has on file. Also record the name, city, and state of the transfer school in the **Comments** column. We will then pursue additional records through the transfer school. Please return transcripts for students who have withdrawn from or dropped out of your school.

Please feel free to make a photocopy of the annotated checklist for your files.

2. Retrieve and prepare transcripts. Collect and photocopy transcripts for the students on the checklist. Ideally, these transcripts will include course-taking histories for ninth through twelfth grades. If ninth grade records are unavailable, please submit transcripts for tenth through twelfth grades. Write a check mark (✓) beside the name of each student for whom you are submitting a transcript.

The Department of Education has asked that we collect the following information from student transcripts:

Student-level information

- ☞ number of absences per year or term
- ☞ rank in class and class size
- ☞ date student left school
- ☞ reason student left school (graduated, transferred, etc.)
- ☞ Cumulative GPA
- ☞ standardized test scores for the PSAT, SAT, ACT, and Advanced Placement tests

Course-taking histories for grades 9 (or 10) through 12, including:

- ☞ course title
- ☞ year, grade level, and term course taken
- ☞ number of credits earned
- ☞ grade assigned

Please attempt to retrieve any information not routinely included on transcripts at your school from other sources, such as guidance records, and write the information on each student's transcript. If any of this information is unavailable, note this on the Transcripts Cover Sheet (see step 4 below).

NOTE: If your school uses any codes or flags on transcripts to identify terms, special education courses, etc., please include a key with the transcripts so that we can translate the codes during data processing.

3. Complete the Student Program Identification Sheet. For each student for whom you are providing a transcript, indicate whether he/she has participated in special education, bilingual education, or gifted courses or programs by entering a check in the appropriate column(s).

NOTE: By "bilingual education" we do not mean foreign language courses taken by native speakers of English (French I, Spanish I, etc.).

4. Complete the Transcripts Cover Sheet. Complete the cover sheet and enclose it with the transcripts. Your responses to the questions on this sheet will help us analyze the transcripts.

5. Insert disclosure notices in each student's school file. These notices explain the purpose of the release of student records to NELS:88 and should be filed with each student's records at your school.

6. Return transcripts, cover sheet, identification sheet, and annotated checklist to NORC. A business reply envelope is enclosed for the return of transcripts and other survey documents. Use of this envelope will ensure that the transcript packet is routed properly once received at NORC.

Reimbursement of transcript preparation expenses: If you would like to be reimbursed for transcript preparation (for photocopying and other related expenses), complete the enclosed voucher and return it with the transcripts. We are prepared to pay up to $1.50 per transcript.

Please return all Transcript Survey documents as soon as possible.

If you have any questions about preparing transcripts or about the survey, please call John Taylor at 1-800-578-7309.

Thank you for your assistance.

NORC/4521
7/92

TRANSCRIPTS COVER SHEET
NELS:88 SECOND FOLLOW-UP

SCHOOL STATE:
PIN:
NAME:

PREPARER'S NAME: ______________________________

PREPARER'S TELEPHONE NUMBER: ____________________ DATE PREPARED: ____________________

Please answer the following questions about the transcripts being provided. Your answers will help us analyze the transcripts.

1. **Please specify below your school's grade scale (the percentage equivalent of each letter grade).** (If your school uses different grade scales for different difficulty levels of courses or tracks (honors, general, special education, etc.), please specify the scale associated with each. If your school has only one scale, record the information in the first column.)

LEVEL ________	LEVEL ________	LEVEL ________	LEVEL ________
A = ____% to ____%	A = ____% to ____%	A = ____% to ____%	A = ____% to ____%
B = ____% to ____%	B = ____% to ____%	B = ____% to ____%	B = ____% to ____%
C = ____% to ____%	C = ____% to ____%	C = ____% to ____%	C = ____% to ____%
D = ____% to ____%	D = ____% to ____%	D = ____% to ____%	D = ____% to ____%
F = ____% to ____%	F = ____% to ____%	F = ____% to ____%	F = ____% to ____%

2. **Is any of the information below unavailable at your school, and consequently not included on the transcripts enclosed? Check off each variable that is unavailable.** (Please attempt to retrieve any information not routinely included on transcripts at your school from other sources, such as guidance records, and write the information on each student's transcript.)

Student-level information

____ number of absences per year or term
____ rank in class and class size
____ date student left school
____ reason student left school (graduated, transferred, etc.)
____ GPA
____ standardized test scores for the PSAT, SAT, ACT, and Advanced Placement tests

Course-taking histories for grades 9 (or 10) through 12, including:

____ course title
____ grade level, year, and term course taken
____ number of credits earned
____ grade assigned

3. **Please feel free to record below any information about the transcripts enclosed that you believe would be helpful in processing them.**

____

____

____

Thank you for your help. We appreciate your cooperation.

STUDENT CHECKLIST
NELS:88 SECOND FOLLOW-UP: STUDENT TRANSCRIPT SURVEY

SCHOOL PIN AND NAME: SCHOOL~

SCHOOL STATE: STATE~

INSTRUCTIONS: Please return transcripts for the students listed below. Write a check mark (✓) next to the name of each student for whom you are returning a transcript. If you are unable to provide a transcript for a student, please indicate the reason (such as "never attended", "transferred") in the "COMMENTS" column, to the right of the student's name. If a student transferred to or from another school, please return any transcripts that you have, and write in the name, city, and state of the transfer school in the "COMMENTS" column.

STUDENT ID	STUDENT NAME	DATE OF BIRTH	ENROLLMENT STATUS	IF DROPOUT, DROPOUT DATE	COMMENTS (TRANSFER SCHOOL NAME, CITY, STATE)

STUDENT PROGRAM IDENTIFICATION SHEET

NORC 4521
7/92

NELS:88 SECOND FOLLOW-UP: STUDENT TRANSCRIPT SURVEY

SCHOOL PIN AND NAME: SCHOOL~ **SCHOOL STATE:** STATE~

INSTRUCTIONS: For each student, please indicate whether he/she has participated in a special education, bilingual education, or gifted course or program by entering a check in the appropriate column(s). Check all that apply.

STUDENT ID	STUDENT NAME	HAS THIS STUDENT PARTICIPATED IN ANY COURSES OR PROGRAMS IN THE FOLLOWING AREAS? (CHECK ALL THAT APPLY)		
		SPECIAL EDUCATION	BILINGUAL EDUCATION	GIFTED COURSES OR PROGRAM

NORC/4521
8/92

DISCLOSURE NOTICE
NATIONAL EDUCATION LONGITUDINAL STUDY OF 1988
SECOND FOLLOW-UP
STUDENT TRANSCRIPT SURVEY

(STUDENT NAME) ________________________

(DATE) ________________

Transcripts for this student for the period of his/her enrollment here have been provided to the National Opinion Research Center (NORC), agent for the National Center for Education Statistics (NCES) of the U.S. Department of Education. This disclosure statement fulfills the requirements of 34 CFR 99.31 pursuant to the Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. 1232g).

The Student Transcript Survey is part of the National Education Longitudinal Study of 1988 (NELS:88) sponsored by NCES. This student is a member of the NELS:88 sample, and data from these records will be combined with others into statistical summaries and tables. No individually identifiable information will be released in any form.

Appendix C

Printouts of the Transcript Data Entry Screens

NOTE:* *Screens have been condensed to more than one per page.

```
Questionnaire Number =


#54—ENTER CADER ID  ___










Id=1143 Prev=0 Back=+ Cancel= Suspend=* Jump= Edit=; Show=?
[Ret]=[Ret]
```

```
#55—ENTER STUDENT ID


    Student name:  STUDENT NAME

Enter student ID:  _______________




Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#6—NUMBER OF DAYS ABSENT


   Student name: STUDENT NAME
     Student ID: STUDENT ID



    Number of days absent during 88-89 school year: ______



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#6—NUMBER OF DAYS ABSENT


   Student name: STUDENT NAME
     Student ID: STUDENT ID



    Number of days absent during 89-90 school year: ______



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#6—NUMBER OF DAYS ABSENT


   Student name: STUDENT NAME
     Student ID: STUDENT ID



    Number of days absent during 90-91 school year:  ______



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#6—NUMBER OF DAYS ABSENT


   Student name: STUDENT NAME
     Student ID: STUDENT ID



    Number of days absent during 91-92 school year:  ______



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#7-PARTICIPATION IN SPE

   Student name: STUDENT NAME
     Student ID: STUDENT ID


    Participation in Specialized Programs.


  1  Special Education
  2  Bilingual Education
  3  Gifted Education
  4  Special and Bilingual Education
  5  Bilingual Education and Gifted
     Education
  6  None of the above



[F4] search

Single Response Code = ___



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#9—RANK


   Student name: STUDENT NAME
     Student ID: STUDENT ID


    Rank in class: ______


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#11—CLASS SIZE


   Student name: STUDENT NAME

     Student ID: STUDENT ID


    Class size: ______


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#13-MONTH

```
   Student name: STUDENT NAME
     Student ID: STUDENT ID

    Date student left school:  ___ /___









Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#16-REASON FOR LEAVING

   Student name: STUDENT NAME

     Student ID: STUDENT ID


    Reason for leaving school:

  01  Standard Diploma
  02  Honors Diploma
  03  Diploma with special education adjustments
  04  Certificate of attendance
  05  Still Enrolled
  06  Dropped out
  07  Transferred
  08  Aged out
  09  Died
  10  Health reason (including pregnancy)
  11  Received GED
  12  Other





[F4] search

Single Response Code = ___



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#17—OTHER

```
    Enter other reason for leaving.


Id=1156 Prev=1158 Back=+ Cancel= Suspend=* Jump= Edit=; Show=?
[Ret]=[Ret]
```

#19—GPA

```
   Student name: STUDENT NAME
     Student ID: STUDENT ID


    Enter GPA (NNN.NN):  ___.__


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#21—PSAT SCORE

   Student name: STUDENT NAME
     Student ID: STUDENT ID


    PSAT Math score: ______
  PSAT Verbal score: ______


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#23—SAT SCORE

   Student name: STUDENT NAME
     Student ID: STUDENT ID


    SAT Math score: ______
  SAT Verbal score: ______


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#25—ACT SCORE

   Student name: STUDENT NAME
     Student ID: STUDENT ID


        ACT Composite score: ______
          ACT English score: ______
             ACT Math score: ______
          ACT Reading score: ______
ACT Science Reasoning score: ______








Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#30-AP TESTS

Select the first five AP tests that were taken starting from the top.

01, Math - Calculus AB
02, Math - Calculus BC
03, Physics B
04, Physics C - Mechanics
05, Physics C - E & M
06, Chemistry
07, Biology
08, Computer Science A
09, Computer Science AB
10, Microeconomics
11, Macroeconomics
12, English Lit. and Composition
13, English Language and Composition
14, U.S. History
15, U.S. Government and Politics
16, Comparative Government and Politics
17, Psychology
18, European History
19, French Language
20, French Literature
21, German Language
22, Latin/Virgil
23, Latin/Catullus - Horace
24, Spanish Language
25, Spanish Literature
26, History of arts
27, Music Listening and Literature
28, Music Theory
29, Studio Art - Drawing
30, Studio Art - General

[F4] search

Multiple Response Code/s = _____

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=? [Ret]=[Ret]

#32 - AP SCORE

Student name: STUDENT NAME
Student ID: STUDENT ID

AP Mathematics - Calculus AB score: ______

```
Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#33-ACHIEVEMENT TESTS

Select the first five tests that were taken starting from the top.


  01, M1   Mathematics level 1            12, FR   French
  02, M2   Mathematics level 2            13, GM   German
  03, M2C  Mathematics level 2c           14, LT   Latin
  04, PH   Physics                        15, SP   Spanish
  05, CH   Chemistry                      16, MH   Modern Hebrew
  06, BY   Biology                        17, IT   Italian
  07, EN   English Composition -
           Multiple Choice
  08, ES   English Composition -
           Multiple Choice and Essay
  09, LR   Literature
  10, AH   American History and Social
           Studies
  11, EH   European History and World
           Cultures


[F4] search

Multiple Response Code/s = _____



Id=1156 Prev=1158 Back=+ Cancel= Suspend=* Jump= Edit=; Show=? [Ret]=[Ret]
```

#35-ACHIEVEMENT SCORE

Student name: STUDENT NAME

Student ID: STUDENT ID

M1 Mathematics level 1 score: ______

Id-1156 Prev-1158 Back-+ Cancel- Suspend-* Jump- Edit-; Show-? [Ret]-[Ret]

```
#37—WERE COURSES TAKEN A

   Student name: STUDENT NAME

     Student ID: STUDENT ID


Were the courses for the first year-grade taken at DEFAULT SCHOOL
NAME?


  1  Yes
  2  No



[F4] search

Single Response Code =░


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#38—QUESTION 38U

   Student name: STUDENT NAME

     Student ID: STUDENT ID

    Enter School PIN for term: ______


Uncoded Response =░░░░░░░░░░░░░░░

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#39—YEAR

```
    School PIN: SCHOOL PIN
  Student name: STUDENT NAME
    Student ID: STUDENT ID
          Term: first

    Year of term: 19___


Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#40—GRADE LEVEL

```
    School PIN: SCHOOL PIN
  Student name: STUDENT NAME
    Student ID: STUDENT ID
     Term year: SCHOOL YEAR

    Grade level: ______

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#42—COURSE DEPARTMENT

```
     School PIN: SCHOOL PIN

   Student name: STUDENT NAME

     Student ID: STUDENT ID

      Term year: SCHOOL YEAR

    Course Name: __________________

     Department: __________________

  Course number: __________________



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#45—TERM TYPE

```
     School PIN: SCHOOL PIN

   Student name: STUDENT NAME

     Student ID: STUDENT ID

      Term year: SCHOOL YEAR

    Course Name: TITLE OF COURSE

Term type:

YEAR  SEM1  SEM2  TRI1  TRI2  TRI3  QUA1  QUA2  QUA3  QUA4  MISS

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#46-CREDITS EARNED

     School PIN: SCHOOL PIN
   Student name: STUDENT NAME
     Student ID: STUDENT ID
   Term & year : TERM, SCHOOL YEAR
    Course Name: TITLE OF COURSE

    Credits earned (NN.NN): ____.____









Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

#48—GRADE ASSIGNED

School PIN: SCHOOL PIN

Student name: STUDENT NAME

Student ID: STUDENT ID

Term & year: TERM, SCHOOL YEAR

Course Name: TITLE OF COURSE

Grade assigned:

01 A+
02 A
03 A-
04 B+
05 B
06 B-
07 C+
08 C
09 C-
10 D+
11 D
12 D-
13 F
14 PASS
15 UNSATISFACTORY
16 WITHDREW
17 INCOMPLETE
18 NON-GRADED
19 BLANK

[F4] search

Single Response Code = _____

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]

#50—MORE COURSES?

School PIN: SCHOOL PIN

Student name: STUDENT NAME

Student ID: STUDENT ID

Term & year: TERM, SCHOOL YEAR

Course name: TITLE OF COURSE

Are there more courses for this year-grade?

01 Yes

21 No

[F4] search

Single Response Code = 1 to continue coding courses in year-grade

21 to continue to Screen 52 to code terms in other year-grades or to exit the student

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]

```
#52—MORE TERMS?

    School PIN: SCHOOL PIN

    Student ID: STUDENT ID

   Term & year: TERM, SCHOOL YEAR


    Are there any more year-grades to enter for this student?


    01  Yes

    21  No




[F4] search

Single Response Code =   1 to code courses taken during the next
                           year-grade

                        21 to continue to Screen 56 and exit the
                           student

Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

```
#56-ARE YOU SURE?

    School PIN: SCHOOL PIN

  Student name: STUDENT NAME

    Student ID: STUDENT ID

   Term & year: TERM, SCHOOL YEAR


    ARE YOU SURE YOU ARE FINISHED WITH THIS STUDENT?

     NO

     YES










[F4] search



Id=1000 Prev=0 Back=+ Cancel=! Suspend=* Jump=Z Edit=; Show=?
[Ret]=[Ret]
```

Appendix D

Grade Conversion Scales

LETTER GRADE CONVERSION SCALE

The following scale was used to convert letter grades to standardized grade codes.

01	A+
02	A
03	A-
04	B+
05	B
06	B-
07	C+
08	C
09	C-
11	D
12	D-
13	F
14	PASS
15	UNSATISFACTORY
16	WITHDREW
17	INCOMPLETE
18	NON-GRADED
19	BLANK

PERCENTAGE GRADE CONVERSION SCALE

To convert percentages to a grade code, clerks first determined the school's minimum passing grade. This information was reported on the Transcripts Cover Sheet. Based on the minimum passing grade, clerks selected one of the following three scales to convert percentages to grade codes.

When clerks could not determine the school's minimum passing grade, they used the first scale (minimum passing grade of 60 percent).

CONVERSION CHART

CODE	IF FAILURE IS BELOW 60	IF FAILURE IS BELOW 65	IF FAILURE IS BELOW 70
1	98 - 100	98 - 100	99 - 100
2	93 - 97	95 - 97	96 - 98
3	90 - 92	92 - 94	94 - 95
4	87 - 89	89 - 91	92 - 93
5	83 - 86	86 - 88	88 - 91
6	80 - 82	83 - 85	86 - 87
7	77 - 79	80 - 82	84 - 85
8	73 - 76	77 - 79	80 - 83
9	70 - 72	74 - 76	78 - 79
10	67 - 69	71 - 73	76 - 77
11	63 - 66	68 - 70	72 - 75
12	60 - 62	65 - 67	70 - 71
13	BELOW 60	BELOW 65	BELOW 70

Appendix E

Record Layouts for the Transcript Data Files

NELS:88 Second Follow-Up Restricted Use Transcript Data Files Record Layouts (Magnetic Tape Version)

The original EBCDIC files delivered on magnetic tape have the following structure (where LRECL = logical record layout and BLKSIZE = blocking factor):

Student-level raw data (F2TRNST.RAW):	LRECL = 701, BLKSIZE = 27339
Course-level raw data (F2TRNCRS.RAW):	LRECL = 117, BLKSIZE = 27963
Student- and course-level SAS and SPSS-X cards:	LRECL = 80, BLKSIZE = 27920

STUDENT FILE

VARIABLE NAME	POSITION	
STU_ID	1-7	
F2SCH_ID	8-12	
F2TRSCWT	13-22	(4)
F2RAB88	23-26	(1)
F2RAB89	27-30	(1)
F2RAB90	31-34	(1)
F2RAB91	35-38	(1)
F2RSPFLG	39-40	
F2RRANK	41-44	
F2RCSIZE	45-48	
F2RDTLMO	49-50	
F2RDTLYR	51-52	
F2RREASL	53-54	
F2RRLVRB	55-74	(A)
F2RGPA	75-79	(2)
F2RPSATM	80-81	
F2RPSATV	82-83	
F2RSATM	84-86	
F2RSATV	87-89	
F2RACTC	90-91	
F2RACTE	92-93	
F2RACTM	94-95	
F2RACTR	96-97	
F2RACTS	98-99	
F2RAPBIO	100-101	
F2RAPCHE	102-103	
F2RAPCGP	104-105	
F2RAPCSA	106-107	
F2RAPCSB	108-109	
F2RAPLIT	110-111	
F2RAPLAN	112-113	
F2RAPEUH	114-115	

STUDENT FILE

VARIABLE NAME	POSITION
F2RAPFLA	116-117
F2RAPFLI	118-119
F2RAPGER	120-121
F2RAPHAR	122-123
F2RAPLCA	124-125
F2RAPLVE	126-127
F2RAPMAC	128-129
F2RAPCAB	130-131
F2RAPCAA	132-133
F2RAPMIC	134-135
F2RAPMLL	136-137
F2RAPMT	138-139
F2RAPPB	140-141
F2RAPPCE	142-143
F2RAPPCM	144-145
F2RAPPSY	146-147
F2RAPSLA	148-149
F2RAPSLI	150-151
F2RAPSAG	152-153
F2RAPSAD	154-155
F2RAPUSG	156-157
F2RAPUSH	158-159
F2RACHM1	160-161
F2RACHM2	162-163
F2RACH2C	164-165
F2RACHPH	166-167
F2RACHCH	168-169
F2RACHBY	170-171
F2RACHEN	172-173
F2RACHES	174-175
F2RACHLR	176-177
F2RACHAH	178-179
F2RACHEH	180-181
F2RACHFR	182-183
F2RACHGM	184-185
F2RACHLT	186-187
F2RACHSP	188-189
F2RACHMH	190-191
F2RACHIT	192-193
F2UNIV1	194-197
F2UNIV2A	198-198
F2UNIV2B	199-199
F2UNIV2C	200-201
F2UNIV2D	202-203

STUDENT FILE

VARIABLE NAME	POSITION	
F2RWTST	204-204	
F2BYQFLG	205-205	
F2F1QFLG	206-206	
F2QFLG	207-207	
F2NSSFLG	208-208	
F2BYTXFL	209-209	
F2F1TXFL	210-210	
F2TXFLG	211-211	
F2BYF1PN	212-212	
F2F1PNFL	213-213	
F2PNLFLG	214-214	
F2CXTFLG	215-215	
G8COHORT	216-216	
G10COHRT	217-217	
G12COHRT	218-218	
F2F1STAT	219-220	
F2STAT	221-222	
F2F1DOST	223-224	
F2DOSTAT	225-225	
F2TRSTYP	226-227	
F2SEX	228-228	
F2RACE1	229-229	
F2BYSES	230-234	(3)
F2F1SES	235-239	(3)
F2SES1	240-244	(3)
F2BYSESQ	245-245	
F2F1SESQ	246-246	
F2SES1Q	247-247	
F2BIRTHM	248-249	
F2BIRTHY	250-251	
F2HSPROG	252-253	
F2BY2XCO	254-257	(2)
F2F12XCO	258-261	(2)
F22XCOMP	262-265	(2)
F2BY2XQU	266-266	
F2F12XQU	267-267	
F22XQURT	268-268	
G8CTRL2	269-269	
G10CTRL2	270-271	
TRNCTRL2	272-273	
G8URBN3	274-274	
G10URBN3	275-275	
TRNURBN3	276-276	
G8REGON	277-278	

STUDENT FILE

VARIABLE NAME	POSITION	
G10REGON	279-280	
TRNREGON	281-282	
TRNSTATE	283-284	(A)
F2RCRLST	285-285	
F2RTR09	286-286	
F2RTR10	287-287	
F2RTR11	288-288	
F2RTR12	289-289	
F2RTROUT	290-291	
F2RTRPRG	292-293	
F2RNWB1A	294-294	
F2RNWB2A	295-295	
F2RNWB3A	296-296	
F2RNWB4A	297-297	
F2RNWB5A	298-298	
F2RNWB1B	299-299	
F2RNWB2B	300-300	
F2RNWB3B	301-301	
F2RNWB4B	302-302	
F2RNWB5B	303-303	
F2RHEN_C	304-307	(2)
F2RHMA_C	308-311	(2)
F2RHSC_C	312-315	(2)
F2RHSO_C	316-319	(2)
F2RHCO_C	320-323	(2)
F2RHFO_C	324-327	(2)
F2RHENG2	328-331	(2)
F2RHMAG2	332-335	(2)
F2RHSCG2	336-339	(2)
F2RHSOG2	340-343	(2)
F2RHCOG2	344-347	(2)
F2RHFOG2	348-351	(2)
F2RENG_C	352-355	(2)
F2RFOR_C	356-359	(2)
F2RMAT_C	360-363	(2)
F2RAL1_C	364-367	(2)
F2RAL2_C	368-371	(2)
F2RGEO_C	372-375	(2)
F2RTRI_C	376-379	(2)
F2RPRE_C	380-383	(2)
F2RCAL_C	384-387	(2)
F2ROMA_C	388-391	(2)
F2RSCI_C	392-395	(2)
F2REAR_C	396-399	(2)

STUDENT FILE

VARIABLE NAME	POSITION	
F2RBIO_C	400-403	(2)
F2RCHE_C	404-407	(2)
F2RPHY_C	408-411	(2)
F2ROSC_C	412-415	(2)
F2RSOC_C	416-419	(2)
F2RHIS_C	420-423	(2)
F2ROSO_C	424-427	(2)
F2RCOM_C	428-431	(2)
F2RVAG_C	432-435	(2)
F2RVBU_C	436-439	(2)
F2RVGN_C	440-443	(2)
F2RVHE_C	444-447	(2)
F2RVHO_C	448-451	(2)
F2RVMA_C	452-455	(2)
F2RVTE_C	456-459	(2)
F2RVTR_C	460-463	(2)
F2R01_C	464-467	(2)
F2R02_C	468-471	(2)
F2R03_C	472-475	(2)
F2R04_C	476-479	(2)
F2R05_C	480-483	(2)
F2R06_C	484-487	(2)
F2R07_C	488-491	(2)
F2R08_C	492-495	(2)
F2R09_C	496-499	(2)
F2R10_C	500-503	(2)
F2R11_C	504-507	(2)
F2R12_C	508-511	(2)
F2R13_C	512-515	(2)
F2R14_C	516-519	(2)
F2R15_C	520-523	(2)
F2R16_C	524-527	(2)
F2R17_C	528-531	(2)
F2R18_C	532-535	(2)
F2R19_C	536-539	(2)
F2R20_C	540-543	(2)
F2R21_C	544-547	(2)
F2R22_C	548-551	(2)
F2R23_C	552-555	(2)
F2R24_C	556-559	(2)
F2R25_C	560-563	(2)
F2R26_C	564-567	(2)
F2R27_C	568-571	(2)
F2R28_C	572-575	(2)

STUDENT FILE

VARIABLE NAME	POSITION	
F2R29_C	576-579	(2)
F2R30_C	580-583	(2)
F2R31_C	584-587	(2)
F2R32_C	588-591	(2)
F2R33_C	592-595	(2)
F2R34_C	596-599	(2)
F2R35_C	600-603	(2)
F2R36_C	604-607	(2)
F2R37_C	608-611	(2)
F2R38_C	612-615	(2)
F2R39_C	616-619	(2)
F2R40_C	620-623	(2)
F2R41_C	624-627	(2)
F2R42_C	628-631	(2)
F2R43_C	632-635	(2)
F2R44_C	636-639	(2)
F2R45_C	640-643	(2)
F2R46_C	644-647	(2)
F2R47_C	648-651	(2)
F2R48_C	652-655	(2)
F2R49_C	656-659	(2)
F2R50_C	660-663	(2)
F2R51_C	664-667	(2)
F2R54_C	668-671	(2)
F2R55_C	672-675	(2)
F2R56_C	676-679	(2)
F2TRP1FL	680-680	
F2TRP2FL	681-681	
F2TRP1WT	682-691	(4)
F2TRP2WT	692-701	(4)

STUDENT FILE

VARIABLE NAME	POSITION	
STU_ID	1-7	
F2SCH_ID	8-12	
F2RDIFSC	13-14	
F2RTRMSC	15-19	
F2RTRMID	20-21	
F2RCRSID	22-23	
F2RYEAR	24-25	
F2RGRLEV	26-27	
F2RCRSDP	28-47	(A)
F2RCRSE	48-92	(A)
F2RCRSNO	93-99	(A)
F2RT_TYP	100-101	
F2RCRED	102-105	(2)
F2RSCRED	106-109	(2)
F2RGRADE	110-111	
F2RCSSC	112-117	

Appendix F

Guidelines for Using SAS
with the NELS:88 Transcript Data

Guidelines for using SAS with NELS:88 Second Follow-Up Transcript Data

The files provided for the restricted use tape include SAS cards and SAS system files for the NELS:88 second follow-up. The student-level SAS system file includes:

1) Student-level transcript data
2) Flags, weights, and composites

The course-level SAS system file includes solely course-level transcript data.

The sections that follow pertain primarily to mainframe applications. In the points below, methods to contain difficulties that may be encountered when using large data files with SAS are discussed.

1. Use the '(KEEP=...)' and '(DROP=...)' options in the 'SET' statement and/or in the 'DATA' statement when creating working data files so that unwanted variables are not included in the files. The '(KEEP=...)' option does not reorder the variables in the new dataset.

   The files are large and the SAS cards associated with all of the variables within a file require a great deal of memory. Eliminating unwanted variables and the cards associated with them will reduce the amount of memory necessary to run jobs.

2. Some of the label statements given in the SAS card files may need to be eliminated because of SAS system limitations present at many computer installations.

3. The large number of VALUE statements in the PROC FORMAT section of the SAS cards require that a special DD statement be placed just after the // EXEC SAS statement to increase the capacity of the format library during a SAS run:

   ```
   //LIBRARY DD SPACE=(TRK,(25,25,60))
   ```

   Since this may not be possible at some computer installations, it may be necessary to delete some VALUE statements.

4. When working with large files, it may be necessary to override the default work space with the following DD statement:

   ```
   //WORK DD UNIT=SYSCR,SPACE=(CYL,(40,40))
   ```

   Place the //WORK DD statement just after the // EXEC SAS statement (or after the //LIBRARY DD statement, if that is included as well).

5. The formats given in the PROC FORMAT step here are not permanently associated with each variable. Whenever they are needed for a procedure, it is necessary to include them in this PROC FORMAT step before the procedure(s) that will use them. The following example will help to illustrate this point.

Suppose you were interested in assessing the association between the reason the student left school and the student's socio-economic quartile. To do this you might construct a two-way crosstab.

In the following example PROC FORMAT is used first to make a temporary library of formats (sets of value labels). Then PROC FREQ is used to access the second follow-up student-level SAS system file and to create a two-way crosstab. The FORMAT statement in PROC FREQ links each variable in the crosstab to the appropriate set of value labels stored in the temporary format library.

```
// EXEC SAS
//LIBRARY DD SPACE=(TRK,(25,25,60))
//WORK DD UNIT=SYSCR,SPACE=(TRK,(1000,1000))
//IN1 DD DSN=ACT.PRIV.F2TRN.SASLIB,DISP=SHR
//SYSIN DD *

OPTIONS DQUOTE;

PROC FORMAT;
VALUE REASL

          01 = "STANDARD DIPLOMA"
          02 = "HONORS DIPLOMA"
          03 = "DIPLOMA/SPEC ED"
          04 = "CERT OF ATTEND"
          05 = "STILL ENROLLED"
          06 = "DROP OUT"
          07 = "TRANSFERRED"
          08 = "AGED OUT"
          09 = "DIED"
          10 = "HEALTH REASON"
          11 = "RECEIVED GED"
          12 = "OTHER"
          98 = "MISSING"

  ;
VALUE SESQ
          1 = "QUARTILE 1"
          2 = "QUARTILE 2"
          3 = "QUARTILE 3"
          4 = "QUARTILE 4"
          8 = "MISSING"

  ;


PROC FREQ DATA=IN1.F2TRNST;
FORMAT
F2RREASL    REASL.
```

```
F2SES1Q     SESQ.

;

TABLES F2RREASL * F2SES1Q;
TITLE "TRANSCRIPT REPORTED EDUCATIONAL OUTCOME BY SOCIO-
ECONOMIC QUARTILE";
```

At the end of each SAS card file, there is a frequency procedure which contains FORMAT statements for every variable for which there is a format. These FORMAT statements can be used in any SAS procedure. However, if there are a large number of format links, they must be divided into several format statements to work. (Using about 90 format links in the format statement proved successful on the University of Chicago mainframe.)

6. Whenever variables are needed from more than one student-level file (i.e., transcript component student- and course-level data files or transcript files and student questionnaire files), the files may be merged by STU_ID using SAS MERGE statements. A simple one line MERGE statement will put variables from separate files together in a single record for analysis.

7. For very large files, the user may encounter problems when sorting. Various options may be added to the //EXEC SAS card to circumvent these problems. A suggested option is given below (consult the SAS manual for descriptions of these options):

```
// EXEC SAS,OPTIONS='NODYNALLOC',REGION=1280K,SORT=30
```

8. It is suggested that the user include the LENGTH statement when creating new variables, in order to save space and computer memory.

9. For many tabulations, PROC TABULATE produces the most readable output. The SAS user may use the format statements (provided) for classification variables to produce the row values of tabulated tables.

10. Output from SAS can be downloaded to personal computers for production of final reports. NCES has available a program for taking into account the sample design when computing standard errors. The program, known as CTAB, is a Taylor series-based routine that uses an ASCII file to compute standard errors for cross-classifications. The program also produces labeled tabular output suitable for use in publications. CTAB is available for use on microcomputers, and can be obtained through NCES.

11. Use the NCES- and NORC-defined composite and classification variables whenever possible to simplify programming. These classification variables were carefully constructed, frequently from sources of data external to transcripts or the student questionnaire.

12. SAS and SPSS-X system files can now be converted at many computer installations. Contact your own facility to obtain the information necessary to create an SPSS-X file from SAS and vice versa.

13. There is a peculiarity with version 6.06 of SAS. The symbol "%" will not be printed in a variable label if the label is the first character to be printed on the page.

Appendix G

NELS:88 Transcript Data Weights, Flags, and Composite Variables

Weights

Cross-sectional analysis of second follow-up transcript data requires that the F2TRSCWT weight variable be applied. This variable is included on the transcript component student file. Panel analyses with either the 1988 to 1992 or 1990 to 1992 sample members require the use of the transcript panel weights, F2TRP1WT and F2TRP2WT. Other longitudinal analyses and analyses using the transcript file with multiple sources of student data may require use of the F1QWT or F2QWT questionnaire weights, the F2CXTWT contextual sample weight, or the F2F1PNWT or F2PNLWT panel weights. These weights are included not on transcript files, but on the appropriate first or second follow-up privileged use student component data file. Suggestions for selecting weights for use with transcript data appear in section 6.1 of this manual. A detailed discussion of second follow-up weighting procedures appears in Chapter III.

Panel, Sample, and Cohort Flags

The following indicators, included on the transcript component student file and the student component data file, are to be used in conjunction with the NELS:88 sample weights. The stem of the variable name for the flag and for its corresponding statistical weight on student component data files are the same.

F2RWTST Indicates the sample member's second follow-up weighting enrollment status, real or imputed, used in calculating second follow-up weights, including F2TRSCWT. This variables must be used in conjunction with F2TRSCWT to identify the proper weighting status of each sample member in the transcript study.

1 = The sample member was eligible for the second follow-up survey and was enrolled in school in the twelfth grade in 1992.

2 = The sample member was eligible for the second follow-up and was enrolled in school, but not in the twelfth grade in 1992.

3 = The sample member was eligible for the second follow-up and was a dropout or alternative completer in 1992.

4 = The sample member was ineligible for the second follow-up or was out-of-scope for the second follow-up.

F2BYF1PN Indicates whether or not sample member on second follow-up file is part of the base year/first follow-up panel sample (1988 to 1990 longitudinal panel).

0 = Sample member is NOT a member of the BY to F1 panel (did not complete a BY student questionnaire AND a F1 student or dropout questionnaire).

1 = Sample member is a member of the BY to F1 panel (completed a BY student questionnaire AND a F1 student or dropout questionnaire).

F2F1PNFL Indicates whether or not sample member on second follow-up file is a member of the first follow-up/second follow-up panel sample (1990 to 1992 longitudinal Panel).

0 = Sample member is NOT a member of the first follow-up/second follow-up panel (did not complete BOTH a F1 questionnaire AND a F2 questionnaire).

1 = Sample member is a member of the F1 to F2 panel, but NOT a member of the sophomore panel (was NOT enrolled in the tenth grade in the spring of 1990, BUT completed a F1 student or dropout questionnaire and F2 student or dropout questionnaire).

2 = Sample member is a member of the F1 to F2 panel, AND a member of the sophomore panel (was enrolled in the tenth grade in the spring of 1990 and completed a F1 student questionnaire AND a F2 student or dropout questionnaire).

F2PNLFLG Indicates whether or not sample member on second follow-up file is a member of the base year/first follow-up/second follow-up panel sample (participated in all three waves of NELS:88: 1988, 1990, and 1992).

0 = Sample member is NOT a member of the BY-F1-F2 panel sample (did not complete a questionnaire in all three rounds of NELS:88).

1 = Sample member is a member of the BY-F1-F2 panel sample (completed a base year student questionnaire AND a F1 student or dropout questionnaire AND a F2 student or dropout questionnaire).

F2CXTFLG Indicates whether or not sample member is member of the contextual components sample.

0 = Sample member is NOT a member of the contextual components sample.

1 = Sample member is a member of the contextual components sample AND completed a second follow-up student questionnaire.

2 = Sample member is a member of the contextual components sample BUT did NOT complete a second follow-up student questionnaire.

The following flags identify everyone on the tape regardless of participation in the dropout or student survey.

G8COHORT Indicates whether or not sample member is a member of the 8th-grade cohort (whether or not s/he was enrolled in the 8th grade during the 1987-88 school year)

0 = Sample member is NOT a member of the 8th-grade cohort (was not enrolled in 8th grade in the spring of 1988, i.e., first follow-up and second follow-up freshened sample members).

1 = Sample member is a "survey" eligible member of the 8th-grade cohort (was enrolled in school in the 8th grade in the spring of 1988 and eligible to complete a NELS:88 base year student questionnaire).

3 = Sample member is a "survey" ineligible member of the 8th-grade cohort (was enrolled in 8th grade in the spring of 1988 but was excluded from the study owing to a mental or physical disability or language barrier to participation).

G10COHRT Indicates whether or not sample member is a member of the 10th-grade cohort (whether or not s/he was enrolled in the 10th grade during the 1989-90 school year)

0 = Sample member is NOT a member of the 10th-grade cohort (was not enrolled in the 10th grade in the spring of 1990, i.e., second follow-up freshened sample members, dropouts, sample members who are out of the modal grade sequence, deceased sample members, and other than first follow-up freshened out-of-USA sample members).

1 = Sample member is a member of the spring-defined 10th-grade cohort (was enrolled in school in the 10th grade in the spring of 1990 and eligible to complete a NELS:88 first follow-up student questionnaire).

2 = Sample member is a member of the fall-defined ONLY 10th-grade cohort (first follow-up freshened student who was enrolled in school in the 10th grade in the fall of 1989, but dropped out by spring of 1990). **These cases do NOT appear on the public use data files.**

3 = Sample member is a "survey" ineligible member of the 10th-grade cohort (was enrolled in 10th grade in the spring of 1990 but was excluded from the study owing to a mental or physical disability or language barrier to participation OR was a first follow-up freshened student who moved out of the USA by spring of 1990).

G12COHRT Indicates whether or not sample member is a member of the 12th-grade cohort (whether or not s/he was enrolled in the 12th grade during the 1991-92 school year)

0 = Sample member is NOT a member of the 12th-grade cohort (was not enrolled in the 12th grade in the spring of 1992, i.e., dropouts, sample members who are out of the modal grade sequence, deceased sample members, unlocatables, and other than second follow-up freshened out-of-country sample members).

1 = Sample member is a member of the spring-defined 12th-grade cohort (was enrolled in school in the 12th grade in the spring of 1992 and eligible to complete a NELS:88 second follow-up student questionnaire).

2 = Sample member is a member of the fall-defined ONLY 12th-grade cohort (second follow-up freshened student who was enrolled in school in the 12th grade in the fall of 1991, but dropped out by spring of 1992). **These cases do NOT appear on the public use data files.**

3 = Sample member is a "survey" ineligible member of the 12th-grade cohort (was enrolled in 12th grade in the spring of 1992 but was excluded from the study owing to a mental or physical disability or language barrier to participation OR was a second follow-up freshened student who moved out of the USA by the spring of 1992).

F2TRP1FL Indicates whether or not sample member on second follow-up file is a member of the base year/first follow-up/second follow-up panel sample (participated in all three waves of NELS:88: 1988, 1990, and 1992) for whom transcript data are also available.

0 = Sample member is either not in the 1988 to 1992 panel or a transcript was not collected.

1 = Sample member is in the 1988 to 1992 panel and a transcript was collected.

F2TRP2FL Indicates whether or not sample member on second follow-up file is a member of the first follow-up to second follow-up panel sample (participated in first and second follow-up waves of NELS:88: 1990 and 1992) for whom transcript data are also available.

0 = Sample member is either not in the 1990 to 1992 panel or a transcript was not collected.

1 = Sample member is in the 1990 to 1992 panel, a transcript was collected, but the sample member was not in the tenth grade in 1990.

2 = Sample member is in the 1990 to 1992 panel, a transcript was collected, and the sample member was in the tenth grade in 1990.

Flags Constructed from Transcript Data

The following four flags may be used to identify sample members for whom data for a particular grade level are present in the course file. By using all four flags, the analyst can identify those sample members for whom complete high school course-taking histories are available.

F2RTR09 Indicates whether ninth-grade transcript data are available.

0 = No ninth-grade course records appear in the course file.

1 = At least one ninth-grade course record appears in the course file.

F2RTR10 Indicates whether tenth-grade transcript data are available.

0 = No tenth-grade course records appear in the course file.
1 = At least one tenth-grade course record appears in the course file.

F2RTR11 Indicates whether eleventh-grade transcript data are available.

0 = No eleventh-grade course records appear in the course file.
1 = At least one eleventh-grade course record appears in the course file.

F2RTR12 Indicates whether twelfth-grade transcript data are available.

0 = No twelfth-grade course records appear in the course file.
1 = At least one twelfth-grade course record appears in the course file.

Flags from Non-Transcript Data Sources

The following flags indicate the completion or not of specified documents. A value of 1 or 2 specifies that the document was completed, 0 that it was not.

F2BYQFLG Indicates whether or not sample member completed a base year student questionnaire.

0 = Sample member did not complete a BY student questionnaire.
1 = Sample member completed a BY student questionnaire.

F2F1QFLG Indicates whether or not sample member completed a first follow-up student or dropout questionnaire.

0 = Sample member did not complete a F1 questionnaire.
1 = Sample member completed a F1 student questionnaire.
2 = Sample member completed a F1 dropout questionnaire.

F2QFLG Indicates whether or not sample member completed a second follow-up student or dropout questionnaire.

0 = Sample member did not complete a F2 questionnaire.
1 = Sample member completed a F2 student questionnaire.
2 = Sample member completed a F2 dropout questionnaire.

This variable can also serve as a **participation flag**. If the value of F2QFLG is greater than 0, then the sample member is a second follow-up participant. If the value of F2QFLG is 0, then the sample member is a second follow-up non-participant.

F2BYTXFL Indicates whether or not sample member completed a base year cognitive test.

0 = Sample member did NOT complete a base year cognitive test.
1 = Sample member completed a base year cognitive test.

F2F1TXFL Indicates whether or not sample member completed a first follow-up cognitive test.

0 = Sample member did NOT complete a first follow-up cognitive test.
1 = Sample member completed a first follow-up cognitive test.

F2TXFLG Indicates whether or not sample member completed a second follow-up cognitive test.

0 = Sample member did NOT complete a second follow-up cognitive test.
1 = Sample member completed a second follow-up cognitive test.

F2NSSFLG Indicates whether or not sample member completed a second follow-up New Student Supplement (is new F2 freshened student or did not complete a BY student questionnaire or a F1 NSS).

0 = Sample member did NOT complete a second follow-up New Student Supplement.

1 = Sample member completed a second follow-up New Student Supplement (if s/he is a second follow-up freshened student or did not complete either a base year student questionnaire or first follow-up NSS).

F2F1STAT Indicates final status in the first follow-up.

00 = Sample member participated.
01 = Other reasons, non-respondent.
02 = Sample member unlocatable.
03 = Sample member or parent refusal.
04 = Sample member is ineligible for survey owing to language barrier, or mental or physical disability.
05 = Sample member is out of USA in this round.
98 = Missing (second follow-up freshened student, etc.)

F2STAT Indicates final status in the second follow-up.

00 = Sample member participated.
01 = Other reasons, non-respondent.
02 = Sample member unlocatable.
03 = Sample member or parent refusal.
04 = Sample member is ineligible for survey owing to language barrier, or mental or physical disability.
05 = Sample member is out of USA in this round.
06 = Sample member is deceased.

F2F1DOST Indicates enrollment status, either dropout or student, as of the first follow-up ONLY. Also permits identification of dropouts according to the NELS:88 first follow-up definition of a dropout (i.e., dropouts only: use values 4 and 5).

00 = student (sample member was not a school dropout or a stopout in the first follow-up)

01 = enrollment status was not determined (includes out-of-country, deceased, and enrollment status unknown cases)

02 = stopout (sample member dropped out of school at one time in first follow-up, but subsequently returned to school)

03 = homestudy student

04 = dropout--school confirmed (sample member was reported by the school to be a dropout but status was not also confirmed by sample member and/or family).

05 = dropout--doubled confirmed (sample member dropped out of school--confirmed by sample member and/or family).

06 = Not applicable--F2 freshened student

F2DOSTAT Indicates enrollment status, either dropout or student, as of the second follow-up ONLY. Also permits identification of dropouts according to either the NELS:88 first follow-up definition of a dropout (i.e., dropouts only: use values 4 and 5) and the HS&B/NELS:88 second follow-up definition of a dropout (i.e., dropouts plus alternative completers: use values 3, 4, and 5).

0 = student (sample member was not a school dropout or a stopout in the second follow-up)

1 = enrollment status was not determined (includes out-of-country, deceased, and enrollment status unknown cases)

2 = stopout (sample member dropped out of school at one time in second follow-up, but subsequently returned to school)

3 = alternative completer (enrolled in or completed an alternative non-diploma program [e.g., GED test preparation classes, or passed GED test or received other alternative certification])

4 = dropout--school confirmed (sample member was reported by the school to be a dropout but status was not also confirmed by sample member and/or family).

5 = dropout--doubled confirmed (sample member dropped out of school--confirmed by sample member and/or family).

Classificatory Composite Variables

A number of composite variables have been included on the transcript component student file. Some variables, such as sample member socioeconomic status and cognitive test scores and quartiles, have been copied from the student component data files; inclusion of these variables on the transcript file permits the analyst to conduct analyses without merging the transcript data files with the student component files. Other variables, including the subject area summary composite variables, aggregate course data by sample member and CSSC code, providing measures of course-taking in specific subject areas. These variables are addressed in a subsequent section.

Socioeconomic Status. The second follow-up files contain three versions of a continuous variable, "F2SES-", that indicates the sample member's socioeconomic status. F2SES1 was derived from the BY parent questionnaire data, the BY student questionnaire data, or the first follow-up or second follow-up New Student Supplement data. F2SES1 appears on all second follow-up student component files (tape and CD-ROM) and on the transcript component student file. Another pair of socioeconomic status indicators, F2SES2 and F2SES3, appear on the final second follow-up parent component files, but not on the transcript component file, and are constructed with second follow-up parent questionnaire data. F2SES3 incorporates the 1989 revision[1] of the Duncan Socioeconomic Index (SEI),[2] whereas F2SES1 and F2SES2 utilize the version that was used in NLS-72, HS&B, and the base year and first follow-up of NELS:88. (Note that one value in the scale was transposed in earlier composites and has been corrected in the present version of F2SES1).

F2SES1 Continuous variable indicating sample member's socioeconomic status. F2SES1 was constructed using base year parent questionnaire data, when available. The following parent data were used: father's education level, mother's education level, father's occupation, mother's occupation, and family income (data coming from BYP30, BYP31, BYP34B, BYP37B and BYP80). Education-level data were recoded according to the definition of BYPARED (with the exception of category "7", which was recoded as missing for F2SES1 calculations). Occupational data were recoded using the Duncan SEI, as used in NLS-72, HS&B, and earlier NELS:88 socioeconomic status variables as indicated below. Parent data were used to construct F2SES1 if at least one component was not missing.

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[1] Nakao, K. and Treas, J., *The 1989 Socioeconomic Index of Occupations: Construction from the 1989 Occupational Prestige Scores;* General Social Survey Methodological Report No. 74, Chicago: NORC, 1992.

[2] Duncan, O.D., "A Socioeconomic Index for All Occupations," in *Occupations and Social Status*, A.J. Reiss et al., eds.; New York: Free Press, 1961.

If all parent data components were missing, the following base year student questionnaire items were used to calculate F2SES1 for base year respondents: father's educational level (BYS34A), mother's educational level (BYS34B), father's occupation (BYS7B), mother's occupation (BYS4B) and presence of household items (BYS35A-P). For base year non-respondents and first or second follow-up freshened students, the equivalent New Student Supplement items were used (F1N20A or F2N8A, F1N20B or F2N8B, F1N7B or F2N7, F1N5B or F2N5 and F1N21A-P or F2N12A-P respectively). The first four components from the base year student/NSS data are the same as the components from the base year parent data (i.e., educational-level data, BYS34A/F1N20A/F2N8A and BYS34B/F1N20B/F2N8B, similarly recoded; occupational data, BYS4B/F1N7B/F2N7 and BYS7B/F1N5B/F2N5 of student data, also recoded). The fifth component for F2SES1 from the student data was derived by summing the non-missing household items listed in BYS35A-P or in F1N21A-P/F2N12A-P (after recoding "Not Have Item" from "2" to "0"), calculating a simple mean of these items, and then standardizing this mean. If eight or more BYS35A-P or F1N21A-P/F2N12A-P were nonmissing, this component was computed; otherwise it was set to missing.

Each nonmissing component (after any necessary recoding) was standardized to a mean of 0 and a standard deviation of 1. Nonmissing standardized components were averaged yielding the F2SES1 composite.

Response code	Duncan's SEI	Label
01	56.58	Clerical
02	27.41	Craftsperson
03	28.00	Farmer
04		Homemaker/Housewife
05	7.33	Laborer
06	67.73	Manager/Administrator
07		Military
08	19.18	Operative
09	70.21	Professional (accountant)
10	70.21	Professional (MD, lawyer)
11	49.70	Proprietor/Owner
12	38.00	Protective service
13	54.42	Sales
14	70.21	School teacher
15	15.90	Service
16	61.40	Technical
17		Never worked
18		Other
19		Missing

Finally, minor errors in the construction of this variable and released on first follow-up files as "F1SES" have been corrected in this release. Changes apply to the quartile F2SES1Q (below) as well.

F2SES1Q Indicates the quartile into which F2SES1 falls. It is constructed by recoding F2SES1 into quartiles based on the weighted (with F2QWT) marginal distribution.

1 = Quartile 1 Low
2 = Quartile 2
3 = Quartile 3
4 = Quartile 4 High
8 = Missing

Base year (F2BYSES1 and F2BYSESQ) and corrected first follow-up (F2F1SES1 and F2F1SESQ) versions of these variables have also been included on the transcript component student file.

F2SEX Most complete indicator of sample member's gender. For the BYI sample and for BY dropouts, F1SEX was created with first follow-up New Student Supplement data (in F1N2) or with information on NORC's survey management systems. For all samples, F2SEX is based on the first follow-up (F1SEX) composite and is augmented by second follow-up New Student Supplement information (in F2N2) if appropriate or, if still missing, imputation from student first names.

1 = Male
2 = Female

F2RACE1 Indicates student's "best known" race. For the BYI sample and BY dropouts, F1RACE was created with data from the first follow-up New Student Supplement (in F1N8A) or from information in NORC's survey management systems. For all samples, F2RACE1 is based on F1RACE and is supplemented when appropriate with second follow-up New Student Supplement data (in F2N17). If F2RACE1 was still missing, available information from NORC's survey management systems was used to fill in missing values.

1 = Asian, Pacific Islander
2 = Hispanic
3 = Black, not Hispanic
4 = White, not Hispanic
5 = American Indian, Alaskan native
8 = Missing

F2HSPROG Indicates the sample member's high school program, as reported by the respondent. The source is the second follow-up student questionnaire item 12A (F2S12A) or the second follow-up dropout questionnaire item 20 (F2D20).

00 = Never attended high school
01 = General high school program
02 = Academic/College prep program
03 = Vocational/Technical program
04 = Other specialized high school program
05 = Special education program
06 = Alternative/Dropout prevention program
07 = Don't know
08 = Missing

School-Level Composites. School-level composites are based on the school, rather than the sample member. Composites with the prefix "TRN" reference the last school attended by the sample member according to transcript data. It is useful to recall that, although the modal grade for the cohort is grade 12 in the second follow-up, not all sample members were seniors in the spring of 1992.

G8CTRL2 Classifies the sample members first follow-up school type into public, Catholic, private NAIS, and other private-not NAIS, as obtained from Quality Education Data (QED) and membership lists provided by the National Association of Independent Schools. This variable appears only on restricted-use files.

01 = Public school
02 = Catholic school
03 = NAIS school
04 = Other private school - not NAIS or Catholic
98 = Missing (first and second follow-up freshened students)

G10CTRL2 Classifies the sample members first follow-up school type into public, Catholic, private NAIS, and other private-not NAIS, as obtained from Quality Education Data (QED) and membership lists provided by the National Association of Independent Schools. This variable appears only on restricted-use files.

01 = Public school
02 = Catholic school
03 = NAIS school
04 = Other private school - not NAIS or Catholic
05 = Non-traditional
06 = Not enrolled
98 = Missing (includes out-of-country, deceased, and enrollment status unknown cases)

TRNCTRL2 Classifies the last school attended by the sample member--according to transcript data--by school type (public, Catholic, private NAIS, and other private-not NAIS) as obtained from Quality Education Data (QED) and membership lists provided by the National Association of Independent Schools. This variable appears only on restricted-use files.

01 = Public school
02 = Catholic school
03 = NAIS school
04 = Other private school - not NAIS or Catholic
98 = Missing

G8URBN3 Trichotomizes the urbanicity of the area in which the sample member's base year school is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

1 = Urban--central city

2 = Suburban--area surrounding a central city within a county constituting the MSA
3 = Rural--outside MSA
8 = Missing (first and second follow-up freshened students)

G10URBN3 Trichotomizes the urbanicity of the area in which the sample member's first follow-up school is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

1 = Urban--central city
2 = Suburban--area surrounding a central city within a county constituting the MSA
3 = Rural--outside MSA
4 = Not enrolled in any school or not enrolled in a traditional diploma-granting school (dropouts and alternative completers)
8 = Missing (includes second follow-up freshened students, out-of-country, deceased, and enrollment status unknown cases)

TRNURBN3 Trichotomizes the urbanicity of the area in which the last school attended by the sample member--according to transcript data--is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

1 = Urban--central city
2 = Suburban--area surrounding a central city within a county constituting the MSA
3 = Rural--outside MSA
8 = Missing

G8REGON Indicates in which of the four US Census regions the sample member's base year school is located, created by collapsing the categories of the school state.

01 = Northeast--New England and Middle Atlantic states
02 = Midwest--East North Central and West North Central states
03 = South--South Atlantic, East South Central and West South Central states
04 = West--Mountain and Pacific states

G10REGON Indicates in which of the four US Census regions the sample member's first follow-up school is located, created by collapsing the categories of the school state.

01 = Northeast--New England and Middle Atlantic states
02 = Midwest--East North Central and West North Central states
03 = South--South Atlantic, East South Central and West South Central states
04 = West--Mountain and Pacific states
05 = Not enrolled in any school or not enrolled in a traditional diploma-granting school (dropouts and alternative completers)

98 = Missing (includes out-of-country, deceased, and enrollment status unknown cases)

TRNREGON Indicates in which of the four US Census regions the school last attended by the sample member--according to transcript data--is located, created by collapsing the categories of the school state.

01 = Northeast--New England and Middle Atlantic states
02 = Midwest--East North Central and West North Central states
03 = South--South Atlantic, East South Central and West South Central states
04 = West--Mountain and Pacific states
98 = Missing

TRNSTATE Indicates the state of the last school attended by the sample member according to transcript data. The values for this variable are the standard two-column Postal Office state abbreviations. This variable appears only on restricted-use files.

Universe Variables. These five variables have been constructed to show the status of each sample member in every wave of NELS:88.

F2UNIV1 Indicates simultaneously the base year, first follow-up and second follow-up situation of every student sample member ever in the study. This variable has 107 valid values that account for every pattern encountered in NELS:88. Note however that not all cases are delivered on the files in every component, so there will be gaps in the range of codes displayed in the codebook and on different files. Value labels in the codebooks begin with BY status, followed by F1 and then F2 status. SAS and SPSS-X value labels follow the same sequence but are, of necessity, much shorter. The following abbreviations were developed for the SAS and SPSS-X cards:

BY = Base year
F1 = First follow-up
F2 = Second follow-up
I = Ineligible for questionnaire administration (mental/physical disability, language barrier)
A = In-school, in-grade
B = In-school, out-of-grade
DO = Dropout
E = Eligible for questionnaire administration
FR = Freshened
NA = Not Applicable (not yet "freshened" into the sample)
X = Out-of-scope (deceased, out-of-USA)
? = Status unknown

F2UNIV2A Indicates how the student sample member entered the sample.

1 = Base year eligible
2 = Base year ineligible for questionnaire administration (mental/physical disability, language barrier)
3 = F1 freshened

4 = F2 freshened

F2UNIV2B Indicates base year status of sample member.

0 = Freshened in first or second follow-up, not yet in study
1 = In school, in grade
4 = Ineligible for BY questionnaire administration (mental/physical disability, language barrier)

F2UNIV2C Indicates first follow-up status of sample member.

0 = Freshened in second follow-up, not yet in study
1 = In school, in grade
2 = In school, out of grade
3 = Dropout
4 = Ineligible for F1 questionnaire administration (mental/physical disability, language barrier)
5 = Out of scope (deceased, out of USA in this round)
6 = Status unknown in this round

F2UNIV2D Indicates second follow-up status of sample member.

1 = In school, in grade
2 = In school, out of grade
3 = Dropout
4 = Ineligible for F2 questionnaire administration (mental/physical disability, language barrier)
5 = Out of scope (deceased, out of USA in this round)
6 = Status unknown in this round

Cognitive Test Results

In each survey wave, the cognitive test battery consisted of multiple choice tests in four subject areas: reading comprehension, mathematics, science, and history/citizenship/geography. The following revised base year, first follow-up, and second follow-up cognitive test variables are included on the transcript component student file. (See the second follow-up student component data file user's manual for detailed information on test forms and scoring.)

F2BY2XCO	Revised base year standardized test composite (reading, math)
F2BY2XQU	Revised base year standardized test quartile (1=low)
F2F12XCO	Revised first follow-up standardized test composite (reading, math)
F2F12XQU	Revised first follow-up standardized test quartile (1=low)
F22XCOMP	Revised second follow-up standardized test composite (reading, math)
F22XQURT	Revised second follow-up standardized test quartile (1=low)

Transcript Composite Variables

The following composite variables were constructed from student and course level transcript data and have been included on the transcript component student file to facilitate analyses.

F2RTROUT Indicates the sample member's educational outcome, as reported by the school on the sample member's transcript. This variable was constructed from F2RREASL, F2RDTLMO, and F2RDTLYR. Because precise graduation date data are sometimes missing, there are more "status unknown" cases in F2RTROUT than in F2RREASL.

01 = Spring 1992 graduate (graduated between April 1 and June 30, 1992)
02 = Other 1992 graduate
03 = Pre-1992 graduate
04 = Diploma with special education adjustments
05 = Certificate of attendance
06 = Still enrolled in school
07 = Dropped out
08 = Transferred
09 = Aged out
10 = Died
11 = Left for health-related reason
12 = Received GED
13 = Other
14 = Status cannot be determined

F2TRSTYP When the same or very similar information is collected from multiple sources, apparent or real contradictions can arise. With the NELS:88 second follow-up, apparent contradictions arise between transcript and survey data because of the lack of a common anchor in time for asking about enrollment status. Schools were surveyed at any time from the beginning to the end of the 1991-92 school year spring term, but transcripts were collected in the subsequent (1992-93) school year.

For example, a student may have been out of school for twenty or more consecutive days as of survey day but may have returned to school prior to the end of the spring term. Survey records (as reflected in F2DOSTAT) would characterize the sample member as a dropout, but school records (as reflected in F2RTROUT) might characterize this individual as a student. Or, a sample member may have been surveyed as a student (say in January or February) but have subsequently dropped out (say in March or April). Survey records would classify this individual as a student, but the transcript would indicate a dropout. A further source of apparent contradictions between survey and records data is difference in definition of a dropout. Survey records classify individuals with twenty or more consecutive unexcused absences as dropouts, but schools were not constrained to the same definition. While contradictions between survey and transcript reports of enrollment status are typically only apparent, genuinely contradictory reports sometimes arise as well.

A special dropout status enrollment indicator, F2TRSTYP, has been created to serve several purposes. First, F2TRSTYP alerts data users to inconsistencies between survey and school records sources. In addition, it comprehensively categorizes the contradictions that arise. This permits users to see which contradictions are merely apparent, and which are real, and to develop sensible strategies for dealing with the latter.[3] **F2TRSTYP appears only on the student and transcript component data files.**

Four enrollment status indices were used in the construction of F2TRSTYP, one transcript-derived enrollment status indicator, F2RTROUT[4], and three survey-derived enrollment status indicators, F2DOSTAT[5], F2RWTST[6], and F2QFLG[7]. Two additional transcript variables, F2RDTLMO (month student left school) and F2RDTLYR (year student left school), were also employed to assess whether the classification of "dropout" on the transcript variable, F2RTROUT, pertained to sample members whose records indicate they dropped out before or during the spring of 1992 or after the spring of 1992. Cases with a value of "dropout" on F2RTROUT *and* a date of after June 1992 on F2RDTLMO and F2RDTLYR, were recoded to the F2TRSTYP category "T-S" which indicates that, according to transcript records, sample members were students. This additional cleaning was done to preserve the study's status definition of a dropout, that is, a sample member who was not enrolled in school in the spring term of the 1991-1992 school year.[8]

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[3] While the purpose of F2TRSTYP is to illuminate any inconsistencies between different sources of the enrollment status of sample members, more than 95 percent of the cases on the second follow-up student files do have identical enrollment status across all sources.

[4] There are actually two transcript derived enrollment indicators, F2RTROUT and F2REASL. F2RTROUT indicates sample members' education outcome, as reported by the school on the sample members' transcript. F2REASL indicates the reason sample members left school, if at all, as reported by the school on the sample members' transcripts. F2RTROUT was constructed from F2REASL. The two indicators differ in terms of the information they provide about the timing of students' graduation from high school. F2REASL indicates only that students graduated from high school while F2RTROUT provides information on whether they are a "spring 1992 graduate" or an "other 1992 graduate" or are a "pre-1992 graduate". Since this difference does not influence the form inconsistencies might take or the resolution of them, for simplicity of construction, only one transcript-derived indicator, F2RTROUT, was used in the construction of F2TRSTYP.

[5] F2DOSTAT indicates sample member enrollment status, either student or dropout, as of the second follow-up only, according to school officials' or parents' reports, in the case of non-participating sample members, or based on the type of questionnaire sample members completed (either dropout or student), in the case of participating sample members.

[6] F2RWTST indicates, for sample members of unknown enrollment status per the student or dropout survey, the enrollment classification probabilistically assigned to them (i.e., imputed). For sample members of known status based on survey information, F2RWTST reflects their known classification. For purposes of deriving final adjusted student questionnaire and panel weights, enrollment status was imputed for non-survey participating sample members of unknown status. This imputation scheme employed with the student survey and used in adjusting student questionnaire and panel weights was carried over to the transcript component and used in the construction of transcript weights.

[7] F2QFLG indicates whether sample members completed a second follow-up questionnaire and the type of questionnaire they completed (0 = did not complete a second follow-up questionnaire; 1 = completed a second follow-up student questionnaire; 2 = completed a second follow-up dropout questionnaire).

[8] Of course, NELS:88 supports multiple cohort status dropout definitions. In particular, information provided by the study permits researchers to view individuals who have left regular high school diploma programs but are making efforts to prepare for the GED examination or other alternative certification, to be classified as students, to be classified as dropouts, or to be separately categorized. When survey and school records enrollment indicators are compared, however, dropouts may most readily be defined as individuals who have left high school diploma programs, without regard to whether they are receiving an alternative form of instruction. This is the case because the transcript study only sought records data

Comparison among the different sources of enrollment status and other transcript variables rendered a variable with 32 categories. The 32 categories reflect all the different combinations of contradictions that exist between transcript-derived enrollment status indicators and student-derived enrollment status indicators. The 32 categories of F2TRSTYP are listed below.

Each value label for F2TRSTYP is composed of four terms which correspond to the four sources of enrollment status information on which F2TRSTYP reports. The first term of the category value labels represents enrollment status according to the transcript variable F2RTROUT. The second term of the category labels reflects enrollment status according to the survey variable F2DOSTAT. The third and four terms of the category labels indicate enrollment status as of the survey-derived variables F2RWTST and F2QFLG, respectively. The abbreviations for the four terms are:

T = the sample member's status as indicated by F2RTROUT
S = the sample member's status as indicated by F2DOSTAT
W = the sample member's status as indicated by F2RWTST
Q = the sample member's status as indicated by F2QFLG

Each of the four terms of F2TRSTYP is followed by a second abbreviation for the enrollment status which the source reports for that sample member:

s = student
d = dropout
p = stopout
t = transfer
? = unknown
sq = student questionnaire completer
dq = dropout questionnaire completer
nq = did not complete a questionnaire

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from regular high schools, and not from alternative programs, and because high schools in most cases did not know whether dropouts from the school were receiving alternative forms of instruction.

Table G-1 F2TRSTYP values and meanings

Values	Value Labels	Sources of enrollment status information			
		F2RTROUT:	F2DOSTAT:	F2RWTST:	F2QFLG:
01	T-s S-s W-s Q-sq	Student	Student	Student	Student quex
02	T-s S-p W-s Q-sq	Student	Stopout	Student	Student quex
03	T-s S-s W-s Q-nq	Student	Student	Student	None
04	T-s S-p W-s Q-nq	Student	Stopout	Student	None
05	T-s S-? W-d Q-nq	Student	Unknown	Dropout	None
06	T-s S-d W-d Q-sq	Student	Dropout	Dropout	Student quex
07	T-s S-d W-d Q-dq	Student	Dropout	Dropout	Dropout quex
08	T-s S-d W-d Q-nq	Student	Dropout	Dropout	None
09	T-d S-d W-d Q-sq	Dropout	Dropout	Dropout	Student quex
10	T-d S-d W-d Q-dq	Dropout	Dropout	Dropout	Dropout quex
11	T-d S-d W-d Q-nq	Dropout	Dropout	Dropout	None
12	T-d S-? W-d Q-nq	Dropout	Unknown	Dropout	None
13	T-d S-s W-s Q-sq	Dropout	Student	Student	Student quex
14	T-d S-p W-s Q-sq	Dropout	Stopout	Student	Student quex
15	T-d S-s W-s Q-nq	Dropout	Student	Student	None
16	T-d S-p W-s Q-nq	Dropout	Stopout	Student	None
17	T-t S-s W-s Q-sq	Transfer	Student	Student	Student quex
18	T-t S-p W-s Q-sq	Transfer	Stopout	Student	Student quex
19	T-t S-s W-s Q-nq	Transfer	Student	Student	None
20	T-t S-p W-s Q-nq	Transfer	Stopout	Student	None
21	T-t S-? W-d Q-nq	Transfer	Unknown	Dropout	None
22	T-t S-d W-d Q-sq	Transfer	Dropout	Dropout	Student quex
23	T-t S-d W-d Q-dq	Transfer	Dropout	Dropout	Dropout quex
24	T-t S-d W-d Q-nq	Transfer	Dropout	Dropout	None
25	T-? S-s W-s Q-sq	Unknown	Student	Student	Student quex
26	T-? S-p W-s Q-sq	Unknown	Stopout	Student	Student quex
27	T-? S-s W-s Q-nq	Unknown	Student	Student	None
28	T-? S-p W-s Q-nq	Unknown	Stopout	Student	None
29	T-? S-? W-d Q-nq	Unknown	Unknown	Dropout	None
30	T-? S-d W-d Q-sq	Unknown	Dropout	Dropout	Student quex
31	T-? S-d W-d Q-dq	Unknown	Dropout	Dropout	Dropout quex
32	T-? S-d W-d Q-nq	Unknown	Dropout	Dropout	None
33	NA-NOT IN TRAN	(Not applicable--not in transcript study)			

Note: On the 7/94 release of the transcript data and in the public and restricted use versions of the second follow-up student data, the labels for values 9 and 10 of F2TRSTYP were reversed and have been corrected in this display of the variable. Value 9 should read: F2RTROUT-drop, F2DOSTAT-drop, F2RWTST-drop, and F2QFLG-stu. Value 10 should read: F2RTROUT-drop, F2DOSTAT-drop, F2RWTST-drop, and F2QFLG-drop.

Using F2TRSTYP, researchers may resolve inconsistencies by reviewing enrollment status reports in light of additional questionnaire and transcript information. While F2TRSTYP gives analysts the information needed to interpret and make their own determinations of how to classify sample members' 1992 spring term enrollment status, in cases of genuine contradiction, some general assumptions about what constitutes the "best source" of data may be defensible. For example, an extremely high degree of credence should be given to cases in which F2DOSTAT indicates that the individual was a dropout and the individual completed a dropout questionnaire. For such cases, dropout status had normally been double-confirmed (the school report was verified by the sample member's family or by the sample member), and, at the time of questionnaire administration, the individual had been available to survey staff who could verify that the dropout questionnaire was the appropriate instrument to administer. On the other hand, status reports from survey data for individuals who were not successfully interviewed may be less certain. Transcript data are generally reliable, although schools did not, for their own records purposes, always use a definition that was consistent with the NELS:88 dropout definition. Finally, the F2RWTST variable is not a very reliable guide to the enrollment status of individual cases. It provides an imputed value for cases with an unknown status. Such imputation is valuable in the aggregate, for improving estimates of dropout rates or for adjusting questionnaire weights, but does not provide definitive status information at the individual level. Further information relevant to 1992 enrollment status has been collected in the NELS:88 third follow-up (1994), and will be available in 1995.

F2RTRPRG Indicates the sample member's high school program, as determined from transcript course-taking data. This composite variable is constructed from the NAEP-equivalent subject area summary composite variables.

01 = Rigorous academic track
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 03.00 and F2RMAT_C GE 03.00 and F2RCOM_C GE 00.50 and F2RFOR_C GE 02.00

02 = Academic track
(F2RENG_C + F2RSOC_C + F2RSCI_C + F2RMAT_C) GE 12.00

03 = Vocational track
F2RVAG_C GE 03.00 or F2RVBU_C GE 03.00 or F2RVGN_C GE 03.00 or F2RVHE_C GE 03.00 or F2RVHO_C GE 03.00 or F2RVMA_C GE 03.00 or F2RVTE_C GE 03.00 or F2RVTR_C GE 03.00

04 = Rigorous academic and vocational
Criteria for values 01 and 03 met.

05 = Academic and vocational
Criteria for values 02 and 03, but not 01, met.

06 = None of the above

Subject Area Summary Composite Variables. Three groups of composite variables aggregating Carnegie units by sample member and subject area have been constructed from course data and have been included on the transcript component student file. Lists of the CSSC course codes aggregated to create each summary composite variable appear in Appendix H. The first group of variables are comparable to composite variables constructed for analyses conducted for the National Center for Education Statistics using data from the 1982 High School and Beyond Transcript Study. HS&B-equivalent variables were constructed only for the New Basics subject areas.

F2RHEN_C	Total Carnegie units in ENGLISH
F2RHMA_C	Total Carnegie units in MATHEMATICS
F2RHSC_C	Total Carnegie units in SCIENCE
F2RHSO_C	Total Carnegie units in SOCIAL STUDIES
F2RHCO_C	Total Carnegie units in COMPUTER SCIENCE/PROGRAMMING/DATA PROCESSING
F2RHFO_C	Total Carnegie units in FOREIGN LANGUAGES

The average grade for courses in each New Basics subject area was also calculated.

F2RHENG2	Average grade in ENGLISH
F2RHMAG2	Average grade in MATHEMATICS
F2RHSCG2	Average grade in SCIENCE
F2RHSOG2	Average grade in SOCIAL STUDIES
F2RHCOG2	Average grade in COMPUTER SCIENCE/PROGRAMMING/DATA PROCESSING
F2RHFOG2	Average grade in FOREIGN LANGUAGES

The second group of variables are equivalent to a subset of the "stubs" created for the 1987 and 1990 NAEP High School Transcript Studies. NAEP-equivalent variables were constructed for the New Basics subject areas, vocational subject areas, and several lower-order course categories, such as Algebra II and Earth Science.

F2RENG_C	Total Carnegie units in ENGLISH
F2RFOR_C	Total Carnegie units in FOREIGN LANGUAGES
F2RMAT_C	Total Carnegie units in MATHEMATICS
F2RAL1_C	Total Carnegie units in ALGEBRA I
F2RAL2_C	Total Carnegie units in ALGEBRA II
F2RGEO_C	Total Carnegie units in GEOMETRY
F2RTRI_C	Total Carnegie units in TRIGONOMETRY
F2RPRE_C	Total Carnegie units in PRE-CALCULUS
F2RCAL_C	Total Carnegie units in CALCULUS
F2ROMA_C	Total Carnegie units in OTHER MATHEMATICS COURSES
F2RSCI_C	Total Carnegie units in SCIENCE
F2REAR_C	Total Carnegie units in EARTH SCIENCE
F2RBIO_C	Total Carnegie units in BIOLOGY
F2RCHE_C	Total Carnegie units in CHEMISTRY
F2RPHY_C	Total Carnegie units in PHYSICS
F2ROSC_C	Total Carnegie units in OTHER SCIENCE COURSES
F2RSOC_C	Total Carnegie units in SOCIAL STUDIES
F2RHIS_C	Total Carnegie units in HISTORY
F2ROSO_C	Total Carnegie units in OTHER SOCIAL STUDIES COURSES
F2RCOM_C	Total Carnegie units in COMPUTER SCIENCE/PROGRAMMING/DATA PROCESSING
F2RVAG_C	Total Carnegie units in AGRICULTURE
F2RVBU_C	Total Carnegie units in BUSINESS

F2RVGN_C	Total Carnegie units in GENERAL INTRODUCTORY VOCATIONAL COURSES
F2RVHE_C	Total Carnegie units in HEALTH AND HUMAN RESOURCES
F2RVHO_C	Total Carnegie units in VOCATIONAL HOME ECONOMICS
F2RVMA_C	Total Carnegie units in MARKETING AND DISTRIBUTION
F2RVTE_C	Total Carnegie units in TECHNICAL
F2RVTR_C	Total Carnegie units in TRADE AND INDUSTRY

The taxonomy used to create the HS&B New Basics summary composite variables is more conservative than the NAEP taxonomy. In general, remedial or basic courses (e.g., 270601 Basic Math 1) and seventh- and eighth-grade courses were excluded from the course lists for the HS&B-equivalent composite variables. These courses were included in the lists for the NAEP-equivalent variables. Special education courses were excluded from lists for both groups of variables.

The final group of subject area summary composite variables is the most inclusive of the three. Variables in this group aggregate Carnegie units not according to lists of specific CSSC course codes but by CSSC subject area, corresponding to the first two digits of the CSSC code.

F2R01_C	Total Carnegie units in AGRIBUSINESS AND AGRICULTURAL PRODUCTION
F2R02_C	Total Carnegie units in AGRICULTURAL SCIENCES
F2R03_C	Total Carnegie units in RENEWABLE NATURAL RESOURCES
F2R04_C	Total Carnegie units in ARCHITECTURE AND ENVIRONMENTAL DESIGN
F2R05_C	Total Carnegie units in AREA AND ETHNIC STUDIES
F2R06_C	Total Carnegie units in BUSINESS AND MANAGEMENT
F2R07_C	Total Carnegie units in BUSINESS AND OFFICE
F2R08_C	Total Carnegie units in MARKETING AND DISTRIBUTION
F2R09_C	Total Carnegie units in COMMUNICATIONS
F2R10_C	Total Carnegie units in COMMUNICATION TECHNOLOGIES
F2R11_C	Total Carnegie units in COMPUTER AND INFORMATION SCIENCES
F2R12_C	Total Carnegie units in CONSUMER, PERSONAL, AND MISCELLANEOUS SERVICES
F2R13_C	Total Carnegie units in EDUCATION
F2R14_C	Total Carnegie units in ENGINEERING
F2R15_C	Total Carnegie units in ENGINEERING AND ENGINEERING-RELATED TECHNOLOGIES
F2R16_C	Total Carnegie units in FOREIGN LANGUAGES
F2R17_C	Total Carnegie units in ALLIED HEALTH
F2R18_C	Total Carnegie units in HEALTH SCIENCES
F2R19_C	Total Carnegie units in HOME ECONOMICS
F2R20_C	Total Carnegie units in VOCATIONAL HOME ECONOMICS
F2R21_C	Total Carnegie units in INDUSTRIAL ARTS
F2R22_C	Total Carnegie units in LAW
F2R23_C	Total Carnegie units in LETTERS
F2R24_C	Total Carnegie units in LIBERAL/GENERAL STUDIES
F2R25_C	Total Carnegie units in LIBRARY AND ARCHIVAL SCIENCES
F2R26_C	Total Carnegie units in LIFE SCIENCES
F2R27_C	Total Carnegie units in MATHEMATICS
F2R28_C	Total Carnegie units in MILITARY SCIENCES

F2R29_C	Total Carnegie units in MILITARY TECHNOLOGIES
F2R30_C	Total Carnegie units in MULTI/INTERDISCIPLINARY STUDIES
F2R31_C	Total Carnegie units in PARKS AND RECREATION
F2R32_C	Total Carnegie units in BASIC SKILLS
F2R33_C	Total Carnegie units in CITIZENSHIP/CIVIC ACTIVITIES
F2R34_C	Total Carnegie units in HEALTH-RELATED ACTIVITIES
F2R35_C	Total Carnegie units in INTERPERSONAL SKILLS
F2R36_C	Total Carnegie units in LEISURE AND RECREATIONAL ACTIVITIES
F2R37_C	Total Carnegie units in PERSONAL AWARENESS
F2R38_C	Total Carnegie units in PHILOSOPHY AND RELIGION
F2R39_C	Total Carnegie units in THEOLOGY
F2R40_C	Total Carnegie units in PHYSICAL SCIENCES
F2R41_C	Total Carnegie units in SCIENCES TECHNOLOGY
F2R42_C	Total Carnegie units in PSYCHOLOGY
F2R43_C	Total Carnegie units in PROTECTIVE SERVICES
F2R44_C	Total Carnegie units in PUBLIC AFFAIRS
F2R45_C	Total Carnegie units in SOCIAL SCIENCES
F2R46_C	Total Carnegie units in CONSTRUCTION TRADES
F2R47_C	Total Carnegie units in MECHANICS AND REPAIRERS
F2R48_C	Total Carnegie units in PRECISION PRODUCTION
F2R49_C	Total Carnegie units in TRANSPORTATION AND MATERIAL MOVING
F2R50_C	Total Carnegie units in VISUAL AND PERFORMING ARTS
F2R51_C	Total Carnegie units in EXECUTIVE INTERNSHIPS
F2R54_C	Total Carnegie units in ACADEMIC LIFE SKILLS/FUNCTIONAL CURRICULUM
F2R55_C	Total Carnegie units in VOCATIONAL LIFE SKILLS/FUNCTIONAL CURRICULUM
F2R56_C	Total Carnegie units in SUBJECT AREA SERVICES

New Basics Flags. The HS&B- and NAEP-equivalent New Basics subject area summary composite variables were used to construct two sets of flags indicating whether the sample member earned a certain minimum number of Carnegie units in the New Basics subject areas. The New Basics composite provides a rough measure of cumulative course taking in the core curriculum, but some caveats should be entered. Summing course work gives little indication of its kind, quality, or level. To give an example from the NAEP-equivalent version of the new basics, one student may have amassed three years of credits in remedial math; another may have three years of math also, but may have completed work in calculus. An English as a Second Language (ESL) student may take three years of English in a given year (for example, ESL writing, ESL reading, and ESL oral skills); such a student is likely to have taken many more than four years of English in high school, but may never have completed advanced literature and composition courses. Not all high schools follow the typical 9-12 grade span structure; a substantial minority of high schools have a 10-12 span. Such schools, however, were nevertheless usually able to provide ninth grade coursetaking reports, so that composites such as the New Basics measures should show but inconsequentially small underreporting biases in their results for students in high schools that begin with the tenth grade.

HS&B-Equivalent New Basics Flags

F2RNWB1A Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, two units in foreign language, and half of a unit in computer science.

0 = Failed threshold

1 = Met threshold
F2RHEN_C GE 04.00 and F2RHSO_C GE 03.00 and F2RHSC_C GE 03.00 and F2RHMA_C GE 03.00 and F2RHCO_C GE 00.50 and F2RHFO_C GE 02.00

F2RNWB2A Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, and half of a unit in computer science.

0 = Failed threshold

1 = Met threshold
F2RHEN_C GE 04.00 and F2RHSO_C GE 03.00 and F2RHSC_C GE 03.00 and F2RHMA_C GE 03.00 and F2RHCO_C GE 00.50

F2RNWB3A Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, and two units in foreign language.

0 = Failed threshold

1 = Met threshold
F2RHEN_C GE 04.00 and F2RHSO_C GE 03.00 and F2RHSC_C GE 03.00 and F2RHMA_C GE 03.00 and F2RHFO_C GE 02.00

F2RNWB4A Indicates whether the sample member earned at least four Carnegie units in English and three units in each of social studies, science, and math.

0 = Failed threshold

1 = Met threshold
F2RHEN_C GE 04.00 and F2RHSO_C GE 03.00 and F2RHSC_C GE 03.00 and F2RHMA_C GE 03.00

F2RNWB5A Indicates whether the sample member earned at least four Carnegie units in English, three units in social studies, two units in science, two units in math.

0 = Failed threshold

1 = Met threshold
F2RHEN_C GE 04.00 and F2RHSO_C GE 03.00 and F2RHSC_C GE 02.00 and F2RHMA_C GE 02.00

NAEP-Equivalent New Basics Flags

F2RNWB1B Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, two units in foreign language, and half of a unit in computer science.

0 = Failed threshold

1 = Met threshold
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 03.00 and F2RMAT_C GE 03.00 and F2RCOM_C GE 00.50 and F2RFOR_C GE 02.00

F2RNWB2B Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, and half of a unit in computer science.

0 = Failed threshold

1 = Met threshold
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 03.00 and F2RMAT_C GE 03.00 and F2RCOM_C GE 00.50

F2RNWB3B Indicates whether the sample member earned at least four Carnegie units in English, three units in each of social studies, science, and math, and two units in foreign language.

0 = Failed threshold

1 = Met threshold
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 03.00 and F2RMAT_C GE 03.00 and F2RFOR_C GE 02.00

F2RNWB4B Indicates whether the sample member earned at least four Carnegie units in English and three units in each of social studies, science, and math.

0 = Failed threshold

1 = Met threshold
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 03.00 and F2RMAT_C GE 03.00

F2RNWB5B Indicates whether the sample member earned at least four Carnegie units in English, three units in social studies, two units in science, two units in math.

0 = Failed threshold

1 = Met threshold
F2RENG_C GE 04.00 and F2RSOC_C GE 03.00 and F2RSCI_C GE 02.00 and F2RMAT_C GE 02.00

Appendix H

Course Content Lists for HS&B and NAEP-Equivalent Subject Area Summary Composite Variables

Lists for NAEP-equivalent variables begin on page H-18.

HS&B-Equivalent Subject Area Summary Composite Variables

F2RHEN_C Total Carnegie Units in English

CSSC CODE	TITLE
070411	Business English 1
070412	Business English 2
070413	Business English 3
070414	Business English 4
090400	Journalism (Mass Communications), Other
090411	Journalism 1
090412	Journalism 2
090413	Journalism 3
090421	Journalism Investigations
090431	Literary Magazine
230100	English, Other General
230106	English 1, Below Grade Level
230107	English 1
230108	English 1, Honors
230109	English 2, Below Grade Level
230110	English 2
230111	English 2, Honors
230112	English 3, Below Grade Level
230113	English 3
230114	English 3, Honors
230115	English 4, Below Grade Level
230116	English 4
230117	English 4, Honors
230118	World Literature
230119	Renaissance Literature
230120	Romanticism
230121	Realism
230122	Literature, Contemporary
230123	Irish Literature
230124	Russian Literature
230125	Bible as Literature
230126	Mythology and Fable
230127	Drama, Introduction
230128	World Drama
230129	Plays, Modern Survey
230130	Novels
230131	Short Story
230132	Mysteries
230133	Poetry

230134	Rock Poetry
230135	Humor
230136	Biography
230137	Non Fiction
230138	Science Fiction
230139	Themes in Literature
230140	Literature of Human Values
230141	Ethnic Literature
230142	Women in Literature
230143	Sports through Literature
230144	Occult Literature
230145	Protest Literature
230146	Youth and Literature
230147	Heroes
230148	Utopias
230149	Death
230150	Nobel Prize Authors
230151	Seminar on an Author
230152	English, Real Life Problem Solving
230153	Reading, Independent Study
230154	Research Technique
230155	Children's Literature & Fantasy
230200	Classics, Other
230211	Mythological Literature, Greek and Roman
230300	Comparative Literature, Other
230311	Comparative Literature
230321	Latin American Authors/Literature
230400	Composition, Other
230401	Composition, Expository
230402	Writing Laboratory
230403	Writing About Literature
230404	Vocabulary
230405	Spelling
230408	Grammar 9
230409	Grammar 10
230410	Grammar 11
230411	Grammar 12
230412	Etymology
230500	Creative Writing, Other
230511	Creative Writing 10
230512	Creative Writing 11
230513	Creative Writing 12
230521	Creative Writing, Independent Study
230600	Linguistics (includes Phonetics, Semantics, and
230611	Linguistics
230700	Literature, American, Other
230711	American Literature
230721	Black Literature
230731	American Dream in Literature

230741	Folklore, American
230751	Indian Literature
230761	State Writers
230771	Western Literature
230781	Mexican American Literature
230800	Literature, English, Other
230811	British Literature Survey
230821	Shakespeare
230831	Modern British Writers
230841	Victorian Literature
230851	Satire, Modern British
230861	Arthurian Legend
230871	Medieval Literature
230900	Rhetoric, Other
231000	Speech, Debate, and Forensics, Other
231011	Public Speaking
231021	Speech 1
231022	Speech 2
231023	Speech 3
231031	Debate Practicum Contract
231100	Technical and Business Writing, Other
231111	Technical English
231215	Speed Reading
231216	Advanced Reading & Study Skills
239900	Letters, Other

F2RHMA_C Total Carnegie Units in Mathematics

CSSC CODE	TITLE
010151	Agricultural Mathematics
070171	Business Mathematics 1
070172	Business Mathematics 2
070221	Financial Mathematics
110121	Computer Mathematics 1
110122	Computer Mathematics 2
170651	Nurse's Mathematics
270100	Mathematics, Other General
270106	Mathematics 1, General
270107	Mathematics 2, General
270108	Science Mathematics
270109	Mathematics in the Arts
270110	Mathematics, Vocational
270111	Technical Mathematics
270114	Consumer Mathematics
270200	Actuarial Sciences, Other
270300	Applied Mathematics, Other
270400	Pure Mathematics, Other
270401	Pre-Algebra
270402	Algebra 1, Part 1
270403	Algebra 1, Part 2
270404	Algebra 1
270405	Algebra 2
270406	Geometry, Plane
270407	Geometry, Solid
270408	Geometry, Plane and Solid
270409	Geometry, Informal
270410	Algebra 3
270411	Trigonometry
270412	Analytic Geometry
270413	Trigonometry and Solid Geometry
270414	Algebra and Trigonometry
270415	Algebra and Analytic Geometry
270416	Analysis, Introductory
270417	Linear Algebra
270418	Calculus and Analytic Geometry
270419	Calculus
270420	Calculus, Advanced Placement
270421	Mathematics 1, Unified
270422	Mathematics 2, Unified
270423	Mathematics 3, Unified
270424	Mathematics, Independent Study
270500	Statistics, Other

270511	Statistics
270521	Probability
270531	Probability and Statistics
279900	Mathematics, Other

F2RHSC_C Total Carnegie Units in Science

CSSC CODE	TITLE
260100	Biology, Other General
260121	Biology, Basic 1
260122	Biology, Basic 2
260131	Biology, General 1
260132	Biology, General 2
260141	Biology, Honors 1
260142	Biology, Advanced
260151	Field Biology
260161	Genetics
260171	Biopsychology
260181	Biology Seminar
260200	Biochemistry and Biophysics, Other
260211	Biochemistry
260300	Botany, Other
260311	Botany
260411	Cell Biology
260500	Microbiology, Other
260511	Microbiology
260600	Miscellaneous Specialized Areas, Life Sciences, Other
260611	Ecology
260621	Marine Biology
260622	Marine Biology, Advanced
260631	Anatomy
260700	Zoology, Other
260711	Zoology
260721	Zoology, Vertebrate
260731	Zoology, Invertebrate
260741	Animal Behavior
260751	Physiology, Human
260752	Physiology, Advanced
260761	Pathology
260771	Comparative Embryology
269900	Life Sciences, Other
300100	Biological and Physical Sciences, Other
300111	Science, Unified
300112	College Pre-Science Skills
300121	Science Study, Independent
300131	Outdoor Education
400100	Physical Sciences, Other General
400121	Physical Science
400131	Chemistry and Physics Laboratory Techniques
400141	Physical Science, Applied
400200	Astronomy, Other
400211	Astronomy
400300	Astrophysics, Other

400400	Atmospheric Sciences and Meteorology, Other
400411	Meteorology
400500	Chemistry, Other
400511	Chemistry, Introductory
400521	Chemistry 1
400522	Chemistry 2
400531	Organic Chemistry
400541	Physical Chemistry
400551	Consumer Chemistry
400561	Chemistry, Independent Study
400600	Geological Sciences, Other
400611	Earth Science
400621	Earth Science, College Preparatory
400631	Geology
400632	Geology - Field Studies
400641	Mineralogy
400700	Miscellaneous Physical Sciences, Other
400711	Oceanography
400800	Physics, Other
400811	Physics, General
400821	Physics 1
400822	Physics 2
400831	Physics 2 without Calculus
400841	Electricity and Electronics Science
400851	Acoustics
400900	Planetary Science, Other
400911	Rocketry and Space Science
401011	Aerospace Science
409900	Physical Sciences, Other

F2RHSO_C Total Carnegie Units in Social Studies

CSSC CODE	TITLE
050100	Area Studies, Other
050101	Area Studies
050102	American Studies, Basic
050103	American Studies, General
050104	America's People and Problems
050105	American Studies, Honors
050106	New England Studies
050107	Old South
050108	American West
050109	Southwest United States
050110	Anglo America
050111	North America and Current Events
050112	North and South America
050113	Latin America
050114	World Studies 1
050115	World Studies 2
050116	World Studies, Honors
050117	Comparative World Cultures
050118	European Culture Studies, Basic
050119	European Culture Studies, General
050120	European Culture Studies, Honors
050121	Developing Nations
050122	African Area Studies
050123	Africa and South America
050124	Asian and African Cultural Studies, Basic
050125	Asian and African Cultural Studies, General
050126	Asian and African Cultural Studies, Honors
050127	Asian Studies
050128	History of China
050129	Asia, Africa and Mideast
050130	Africa and Middle East
050131	Middle Eastern Studies
050132	Middle East, War for Survival
050133	U S S R
050134	Soviet Union and China
050135	Soviet Union and Afro American Developing Nations
050136	History of Russia
050137	Neglected World
050138	Global Education
050139	Pacific Rim Nations
050140	Canadian Area Studies
050200	Ethnic Studies, Other
050211	Minorities in America
050221	Ethnic and Family Heritage
050231	Afro American Studies

050241	Economics of Afro Americans
050251	Indians of North America
050261	Jewish Historical Significance
050271	Mexican American Heritage
050281	Hawaiian
050291	Hawaiian Culture Studies, Modern
059900	Area and Ethnic Studies, Other
300400	Humanities and Social Sciences, Other
300411	Humanities
300421	Humanities, European
300431	Humanities, American
300441	Humanities, African
300451	Humanities, Near East and Far East
300500	Peace Studies, Other
300700	Women's Studies, Other
300711	Women's Studies
300721	Women's Studies in Literature
420100	Psychology, Other General
420111	Psychology
420112	Psychology, Advanced
420113	Abnormal Psychology
420200	Clinical Psychology, Other
420300	Cognitive Psychology, Other
420311	Psychology of Learning
420321	Educational Psychology
420400	Community Psychology, Other
420500	Comparative Psychology, Other
420600	Counseling Psychology, Other
420700	Developmental Psychology, Other
420711	Child Psychology
420721	Adolescent Psychology
420731	Adjustment Psychology
420800	Experimental Psychology, Other
420900	Industrial and Organizational Psychology, Other
421000	Personality Psychology, Other
421011	Historical Personalities and Ideas
421021	Humanistic Psychology
421100	Physiological Psychology, Other
421200	Psycholinguistics, Other
421300	Psychometrics, Other
421400	Psychopharmacology, Other
421411	Psychopharmacology
421500	Quantitative Psychology, Other
421600	Social Psychology, Other
421611	Social Psychology
429900	Psychology, Other
440100	Public Affairs, Other General
440200	Community Services, Other
440300	International Public Service, Other

440400	Public Administration, Other
440500	Public Policy Studies, Other
440600	Public Works, Other
440700	Social Work, Other
440711	Human Services
449900	Public Affairs, Other
450100	Social Sciences, Other General
450111	Social Science, Introduction
450121	Social Science, Advanced Theory and Research
450131	Social Science Seminar
450141	Social Studies, Independent Study
450200	Anthropology, Other
450211	Anthropology
450221	Comparative Cultural Patterns
450231	Anthropology, Myth and Magic
450241	Cultural Anthropology, Research
450300	Archaeology, Other
450311	Archaeology
450400	Criminology, Other
450500	Demography, Other
450511	Population Education
450600	Economics, Other
450601	Economics, Theory
450602	Economics and Economic Problems
450603	Consumer Economics
450606	Investment Economics
450607	Television and Economics
450608	Energy Education
450609	American Labor History
450610	Economics, Analysis and Criticism
450611	Economics, College
450612	International Economics
450700	Geography, Other
450702	Geography, United States
450703	Geography, North American
450704	World Geography
450705	Geography, Western Hemisphere and Africa
450706	Geography, Eastern Hemisphere
450707	Physical Geography
450708	Economic and Political Geography
450709	Human and Cultural Geography
450710	Field Geography, Honors
450800	History, Other
450807	United States History, State and Local
450808	United States History, Advanced Placement
450809	American History, Basic
450810	American History
450811	United States History 1
450812	United States History 2

450813	United States History, Honors
450814	American History, Advanced Placement
450815	Westward Movement
450816	Twentieth Century America
450817	Twenties and Thirties
450818	America Since 1945
450819	Nineteen Sixties
450820	Nineteen Seventies
450821	Reform in American History
450822	American Inquiries
450823	Historic Events, United States
450824	American Wars, Causes and Effects
450825	Civil War
450826	Civil War, Reconstruction and Industrialism
450827	War and Modern Consciousness
450828	World War II
450829	United States Military History 1
450830	United States Military History 2
450831	United States History, Field Study
450832	North American History
450833	Mexican History
450834	South American History
450835	World History
450836	World History, College
450837	World History, Modern
450838	World Civilization, Twentieth Century
450839	World Civilization, Twentieth Century, Honors
450840	Western Civilization 9
450841	Western Civilization 9, Honors
450842	Western Civilization, History
450843	Early Western Civilization
450844	Western Civilization, Advanced Placement
450845	Ancient and Classical World
450846	Ancient Greek History
450847	Rome and Her Empire
450848	Ancient History and Middle Ages
450849	English History
450850	English History, Honors
450851	French Revolution, Honors
450852	Modern Europe
450853	European History, Mid-Nineteenth Through
450854	European History, Twentieth Century
450855	European History, Advanced Readings
450856	European History, Modern, Advanced Placement
450857	Third World History
450858	African History
450859	Africa, Middle East and Latin America
450860	Latin American History
450861	Middle East History

450862	Israel, History
450863	Eastern Civilization
450864	Far East, History
450865	Asian History, Modern
450866	Pacific Lands, History
450867	Russian History
450868	World Leaders, Past and Present
450869	Historical Research
450900	International Relations, Other
450911	International Relations
450921	International Relations, Honors
450931	International Law
450941	Model Security Council, Local
450951	Model United Nations, Local
450952	Model United Nations, National
451000	Political Science and Government, Other
451001	Civics
451002	State and Local Government
451003	Government, Basic
451004	American Government
451005	Presidency
451006	Framework of the Constitution
451007	Individual vs State
451008	National State and Local Elections
451009	Elections, Politics and Morality, Honors
451010	Contemporary World Affairs
451011	American Foreign Policy
451012	Decision Making in a Crisis
451013	American Heritage, Honors
451014	Contemporary American Political Issues
451015	Contemporary American Political Issues, Honors
451016	American Government and Economics, Basic
451017	American Government and Economics
451018	American Government and Economics, Honors
451019	Comparative Political Systems, Basic
451020	Comparative World Governments
451021	Americanism vs Communism
451022	Americanism vs Communism, Honors
451023	Communism and Its Growth
451024	Civics, Honors
451025	Writings Influencing Government
451026	Government Internship
451027	Model Senate
451028	Political Leadership
451029	Political Science
451030	Political Science, Advanced Placement
451031	Political Science and Government -
451032	Political Turmoil
451033	Contemporary Issues, Basic Skills

451100	Sociology, Other
451111	American Social Problems, Introduction
451121	Sociology, General
451131	Sociology, Issues
451132	The Poor in America
451141	Mobility in Society
451151	Violence In America
451161	Death and Dying
451171	Sociology, Honors
451181	Sociology, Research
451200	Urban Studies, Other
451211	Urban Problems
451221	Urban Ecology
451231	Technology and Urbanization
459900	Social Sciences, Other

F2RHCO_C Total Carnegie Units in Computer Science/Programming/Data Processing

CSSC CODE	TITLE
010161	Agricultural Microprocessing
070300	Business Data Processing and Related Programs, Other
070311	Computers In Business
070321	Business Data Processing 1
070322	Business Data Processing 2
070331	Business Computer Programming 1
070332	Business Computer Programming 2
110100	Computer and Information Sciences, Other General
110111	Computer Appreciation
110121	Computer Mathematics 1
110122	Computer Mathematics 2
110131	Computer Applications
110132	Computer Applications, Independent Study
110141	Computer Science, Advanced Placement
110151	Artificial Intelligence
110200	Computer Programming, Other
110211	Computer Programming 1
110212	Computer Programming 2
110213	Computer Programming 3
110221	FORTRAN, Introduction
110231	PASCAL, Introduction
110232	Advanced PASCAL
110241	BASIC, Introduction
110242	Advanced BASIC
110251	COBOL, Introduction
110252	Advanced COBOL
110261	LOGO, Introduction
110271	RPG Programming, Introduction
110300	Data Processing, Other
110311	Data Processing, Introduction
110312	Data Processing, Intermediate
110313	Data Processing, Advanced
110321	Computer Programming - Cooperative Education
110400	Information Sciences and Systems, Other
110500	Systems Analysis, Other
119900	Computer and Information Sciences, Other

F2RHFO_C Total Carnegie Units in Foreign Languages

CSSC	TITLE
160100	Foreign Languages, Multiple Emphasis, Other
160111	Foreign Language, Exploratory
160200	African (Non-Semitic) Languages, Other
160211	Swahili 1
160212	Swahili 2
160221	Amharic 1 (Ethiopian)
160222	Amharic 2 (Ethiopian)
160300	Asiatic Languages, Other
160311	Cantonese 1
160312	Cantonese 2
160313	Cantonese 3
160314	Cantonese 4
160321	Mandarin 1
160322	Mandarin 2
160323	Mandarin 3
160324	Mandarin 4
160325	Mandarin 5
160331	Japanese 1
160332	Japanese 2
160333	Japanese 3
160334	Japanese 4
160335	Japanese 5
160336	Foreign Language Contract, Japanese
160341	Hawaiian 1
160342	Hawaiian 2
160343	Hawaiian 3
160344	Hawaiian 4
160345	Hawaiian Language and Culture
160351	Korean 1
160352	Korean 2
160353	Korean 3
160354	Korean 4
160355	Korean 5
160400	Balto-Slavic Languages, Other
160411	Ukrainian 1
160421	Russian 1
160422	Russian 2
160423	Russian 3
160424	Russian 4
160425	Russian 5
160426	Russian 6
160427	Foreign Language Contract, Russian
160431	Czech 1
160432	Czech 2
160433	Czech 3

160441	Polish 1
160442	Polish 2
160443	Polish 3
160444	Polish 4
160451	Finnish 1
160452	Finnish 2
160453	Finnish 3
160454	Finnish 4
160500	Germanic Languages, Other
160501	Dutch 1
160502	Dutch 2
160503	Dutch 3
160511	German 7
160512	German 8
160513	German 1
160514	German 2
160515	German 3
160516	German 4
160517	German, Advanced Placement
160518	German Field-Based Experience
160519	Foreign Language Contract, German
160521	Norwegian 1
160522	Norwegian 2
160531	Swedish 1
160532	Swedish 2
160533	Swedish 3
160541	Yiddish 1
160542	Yiddish 2
160543	Yiddish 3
160600	Greek, Other
160611	Modern Greek for Survival
160621	Modern Greek
160622	Modern Greek 2
160623	Modern Greek 3
160624	Modern Greek 4
160631	Classical Greek 1
160632	Classical Greek 2
160633	Classical Greek 3
160634	Classical Greek 4
160700	Indic Languages, Other
160800	Iranian Languages, Other
160900	Italic Languages, Other
160901	French 7
160902	French 8
160903	French 1
160904	French 2
160905	French 3
160906	French 4
160907	French, Advanced Placement

160908	French Field-Based Experience
160909	Foreign Language Contract, French
160910	French, Conversational
160911	Italian 7
160912	Italian 8
160913	Italian 1
160914	Italian 2
160915	Italian 3
160916	Italian 4
160917	Italian, Advanced Placement
160918	Italian Field-Based Experience
160919	Foreign Language Contract, Italian
160920	Latin 1
160921	Latin 2
160922	Latin 3
160923	Latin 4
160924	Latin, Advanced Placement
160925	Foreign Language Contract, Latin
160926	Portuguese 1
160927	Portuguese 2
160928	Portuguese 3
160929	Portuguese 4
160930	Portuguese 5
160931	Spanish 7
160932	Spanish 8
160933	Spanish 1
160934	Spanish 2
160935	Spanish 3
160936	Spanish 4
160937	Spanish, Advanced Placement
160938	Spanish Field-Based Experience
160939	Foreign Language Contract, Spanish
160941	Spanish for Travelers
160942	Spanish, Commercial
161000	Native American Languages, Other
161100	Semitic Languages, Other
161111	Hebrew 1
161112	Hebrew 2
161113	Hebrew 3
161114	Hebrew 4
161115	Arabic 1
161116	Arabic 2
161117	Arabic 3
161118	Arabic 4
161119	Foreign Language Contract - Arabic
161211	Turkish 1
161212	Turkish 2
169900	Foreign Languages, Other

NAEP-Equivalent Subject Area Summary Composite Variables

F2RENG_C **Total Carnegie Units in English**

CSSC CODE	TITLE
090100	Communications, Other General
090111	Mass Media
090121	Intercultural Communications
090300	Communications Research, Other
090400	Journalism (Mass Communications), Other
090421	Journalism Investigations
090721	Television and Taste
099900	Communications, Other
160121	English as a Second Language 1
160122	English as a Second Language 2
160123	English as a Second Language 3
160124	English as a Second Language, Skills Lab
160125	Transitional English
230100	English, Other General
230101	English 7
230102	English 7, Honors
230103	English 8, Below Grade Level
230104	English 8
230105	English 8, Honors
230106	English 1, Below Grade Level
230107	English 1
230108	English 1, Honors
230109	English 2, Below Grade Level
230110	English 2
230111	English 2, Honors
230112	English 3, Below Grade Level
230113	English 3
230114	English 3, Honors
230115	English 4, Below Grade Level
230116	English 4
230117	English 4, Honors
230118	World Literature
230119	Renaissance Literature
230120	Romanticism
230121	Realism
230122	Literature, Contemporary
230123	Irish Literature
230124	Russian Literature
230125	Bible as Literature
230126	Mythology and Fable
230127	Drama, Introduction
230128	World Drama
230129	Plays, Modern Survey

230130	Novels
230131	Short Story
230132	Mysteries
230133	Poetry
230134	Rock Poetry
230135	Humor
230136	Biography
230137	Non Fiction
230138	Science Fiction
230139	Themes in Literature
230140	Literature of Human Values
230141	Ethnic Literature
230142	Women in Literature
230143	Sports through Literature
230144	Occult Literature
230145	Protest Literature
230146	Youth and Literature
230147	Heroes
230148	Utopias
230149	Death
230150	Nobel Prize Authors
230151	Seminar on an Author
230152	English, Real Life Problem Solving
230153	Reading, Independent Study
230154	Research Technique
230155	Children's Literature & Fantasy
230161	English Skills 1 for Visually Impaired
230162	English Skills 2 for Visually Impaired
230163	English Skills 3 for Visually Impaired
230164	English Skills 4 for Visually Impaired
230200	Classics, Other
230211	Mythological Literature, Greek and Roman
230300	Comparative Literature, Other
230311	Comparative Literature
230321	Latin American Authors/Literature
230400	Composition, Other
230401	Composition, Expository
230402	Writing Laboratory
230403	Writing About Literature
230404	Vocabulary
230405	Spelling
230406	Grammar 7
230407	Grammar 8
230408	Grammar 9
230409	Grammar 10
230410	Grammar 11
230411	Grammar 12
230412	Etymology
230413	Handwriting

230414	Interpersonal Communication
230415	Word Study - Remedial
230500	Creative Writing, Other
230511	Creative Writing 10
230512	Creative Writing 11
230513	Creative Writing 12
230521	Creative Writing, Independent Study
230600	Linguistics (includes Phonetics, Semantics, and
230611	Linguistics
230700	Literature, American, Other
230711	American Literature
230721	Black Literature
230731	American Dream in Literature
230741	Folklore, American
230751	Indian Literature
230761	State Writers
230771	Western Literature
230781	Mexican American Literature
230800	Literature, English, Other
230811	British Literature Survey
230821	Shakespeare
230831	Modern British Writers
230841	Victorian Literature
230851	Satire, Modern British
230861	Arthurian Legend
230871	Medieval Literature
230900	Rhetoric, Other
231000	Speech, Debate, and Forensics, Other
231011	Public Speaking
231021	Speech 1
231022	Speech 2
231023	Speech 3
231031	Debate Practicum Contract
231100	Technical and Business Writing, Other
231111	Technical English
231211	Reading Development 1
231212	Reading Development 2
231213	Reading Development 3
231214	Reading Development 4
231215	Speed Reading
231216	Advanced Reading & Study Skills
231311	Functional English 1
231312	Functional English 2
231313	Functional English 3
231314	Functional English 4
239900	Letters, Other

F2RMAT_C Total Carnegie Units in Math

CSSC CODE	TITLE
270100	Mathematics, Other General
270101	Mathematics 7
270102	Mathematics 7, Accelerated
270103	Mathematics 8
270104	Mathematics 8, Accelerated
270105	Unused Code
270106	Mathematics 1, General
270107	Mathematics 2, General
270108	Science Mathematics
270109	Mathematics in the Arts
270110	Mathematics, Vocational
270111	Technical Mathematics
270112	Mathematics Review
270114	Consumer Mathematics
270200	Actuarial Sciences, Other
270300	Applied Mathematics, Other
270400	Pure Mathematics, Other
270401	Pre-Algebra
270402	Algebra 1, Part 1
270403	Algebra 1, Part 2
270404	Algebra 1
270405	Algebra 2
270406	Geometry, Plane
270407	Geometry, Solid
270408	Geometry, Plane and Solid
270409	Geometry, Informal
270410	Algebra 3
270411	Trigonometry
270412	Analytic Geometry
270413	Trigonometry and Solid Geometry
270414	Algebra and Trigonometry
270415	Algebra and Analytic Geometry
270416	Analysis, Introductory
270417	Linear Algebra
270418	Calculus and Analytic Geometry
270419	Calculus
270420	Calculus, Advanced Placement
270421	Mathematics 1, Unified
270422	Mathematics 2, Unified
270423	Mathematics 3, Unified
270424	Mathematics, Independent Study
270500	Statistics, Other
270511	Statistics
270521	Probability
270531	Probability and Statistics

270601	Basic Math 1
270602	Basic Math 2
270603	Basic Math 3
270604	Basic Math 4
279900	Mathematics, Other

F2RAL1_C Total Carnegie Units in Algebra I

CSSC CODE	TITLE
270401	Pre-Algebra
270402	Algebra 1, Part 1
270403	Algebra 1, Part 2
270404	Algebra 1
270421	Mathematics 1, Unified

F2RAL2_C Total Carnegie Units in Algebra II

CSSC CODE	TITLE
270405	Algebra 2
270410	Algebra 3
270417	Linear Algebra

F2RGEO_C Total Carnegie Units in Geometry

CSSC CODE	TITLE
270406	Geometry, Plane
270407	Geometry, Solid
270408	Geometry, Plane and Solid
270409	Geometry, Informal
270412	Analytic Geometry
270415	Algebra and Analytic Geometry
270422	Mathematics 2, Unified

F2RTRI_C Total Carnegie Units in Trigonometry

CSSC CODE	TITLE
270411	Trigonometry
270413	Trigonometry and Solid Geometry
270414	Algebra and Trigonometry

F2RPRE_C Total Carnegie Units in Precalculus

CSSC CODE	TITLE
270416	Analysis, Introductory

F2RCAL_C Total Carnegie Units in Calculus

CSSC CODE	TITLE
270418	Calculus and Analytic Geometry
270419	Calculus
270420	Calculus, Advanced Placement

F2ROMA1_C Total Carnegie Units in Other Math Courses

This variable was constructed by subtracting **F2RAL1_C, F2RAL2_C, F2RGEO_C, F2RTRI_C, F2RPRE_C, and F2RCAL_C from F2RMAT_C.**

F2RFOR_C Total Carnegie Units in Foreign Languages

CSSC CODE	TITLE
090811	Sign Language 1
090812	Sign Language 2
090821	Braille Communications
160100	Foreign Languages, Multiple Emphasis, Other
160111	Foreign Language, Exploratory
160200	African (Non-Semitic) Languages, Other
160211	Swahili 1
160212	Swahili 2
160221	Amharic 1 (Ethiopian)
160222	Amharic 2 (Ethiopian)
160300	Asiatic Languages, Other
160311	Cantonese 1
160312	Cantonese 2
160313	Cantonese 3
160314	Cantonese 4
160321	Mandarin 1
160322	Mandarin 2
160323	Mandarin 3
160324	Mandarin 4
160325	Mandarin 5
160331	Japanese 1
160332	Japanese 2
160333	Japanese 3
160334	Japanese 4
160335	Japanese 5
160336	Foreign Language Contract, Japanese
160341	Hawaiian 1
160342	Hawaiian 2
160343	Hawaiian 3
160344	Hawaiian 4
160345	Hawaiian Language and Culture
160351	Korean 1
160352	Korean 2
160353	Korean 3
160354	Korean 4
160355	Korean 5
160400	Balto-Slavic Languages, Other
160411	Ukrainian 1
160421	Russian 1
160422	Russian 2
160423	Russian 3
160424	Russian 4
160425	Russian 5
160426	Russian 6
160427	Foreign Language Contract, Russian

160431	Czech 1
160432	Czech 2
160433	Czech 3
160441	Polish 1
160442	Polish 2
160443	Polish 3
160444	Polish 4
160451	Finnish 1
160452	Finnish 2
160453	Finnish 3
160454	Finnish 4
160500	Germanic Languages, Other
160501	Dutch 1
160502	Dutch 2
160503	Dutch 3
160511	German 7
160512	German 8
160513	German 1
160514	German 2
160515	German 3
160516	German 4
160517	German, Advanced Placement
160518	German Field-Based Experience
160519	Foreign Language Contract, German
160521	Norwegian 1
160522	Norwegian 2
160531	Swedish 1
160532	Swedish 2
160533	Swedish 3
160541	Yiddish 1
160542	Yiddish 2
160543	Yiddish 3
160600	Greek, Other
160611	Modern Greek for Survival
160621	Modern Greek
160622	Modern Greek 2
160623	Modern Greek 3
160624	Modern Greek 4
160631	Classical Greek 1
160632	Classical Greek 2
160633	Classical Greek 3
160634	Classical Greek 4
160700	Indic Languages, Other
160800	Iranian Languages, Other
160900	Italic Languages, Other
160901	French 7
160902	French 8
160903	French 1
160904	French 2

160905	French 3
160906	French 4
160907	French, Advanced Placement
160908	French Field-Based Experience
160909	Foreign Language Contract, French
160910	French, Conversational
160911	Italian 7
160912	Italian 8
160913	Italian 1
160914	Italian 2
160915	Italian 3
160916	Italian 4
160917	Italian, Advanced Placement
160918	Italian Field-Based Experience
160919	Foreign Language Contract, Italian
160920	Latin 1
160921	Latin 2
160922	Latin 3
160923	Latin 4
160924	Latin, Advanced Placement
160925	Foreign Language Contract, Latin
160926	Portuguese 1
160927	Portuguese 2
160928	Portuguese 3
160929	Portuguese 4
160930	Portuguese 5
160931	Spanish 7
160932	Spanish 8
160933	Spanish 1
160934	Spanish 2
160935	Spanish 3
160936	Spanish 4
160937	Spanish, Advanced Placement
160938	Spanish Field-Based Experience
160939	Foreign Language Contract, Spanish
160941	Spanish for Travelers
160942	Spanish, Commercial
161000	Native American Languages, Other
161100	Semitic Languages, Other
161111	Hebrew 1
161112	Hebrew 2
161113	Hebrew 3
161114	Hebrew 4
161115	Arabic 1
161116	Arabic 2
161117	Arabic 3
161118	Arabic 4

161119	Foreign Language Contract - Arabic
161211	Turkish 1
161212	Turkish 2
169900	Foreign Languages, Other

F2RSCI_C Total Carnegie Units in Science

CSSC CODE	TITLE
140100	Engineering, Other General
140111	Orientation to Engineering
140200	Aerospace, Aeronautical, and Astronautical
140211	Aerospace Materials
140221	Aerospace Engineering Design
140300	Agricultural Engineering, Other
140400	Architectural Engineering, Other
140411	Strength of Materials - Architectural
140500	Bioengineering and Biomedical Engineering, Other
140600	Ceramic Engineering, Other
140700	Chemical Engineering, Other
140800	Civil Engineering, Other
140900	Computer Engineering, Other
141000	Electrical, Electronics, and Communications
141100	Engineering Mechanics, Other
141200	Engineering Related, Other
141211	Instrumentation Physics 1
141212	Instrumentation Physics 2
141213	Instrumentation Physics 3
141214	Instrumentation Physics 4 /Advanced Placement
141300	Engineering Science, Other
141400	Environmental Health Engineering, Other
141500	Geological Engineering, Other
141600	Geophysical Engineering, Other
141700	Industrial Engineering, Other
141800	Materials, Engineering, Other
141900	Mechanical Engineering, Other
141911	Strength of Materials - Mechanical Technology
142000	Metallurgical Engineering, Other
142011	Metallurgy/Powder Metal Basics
142100	Mining and Mineral Engineering, Other
142200	Naval Architecture and Marine Engineering, Other
142300	Nuclear Engineering, Other
142400	Ocean Engineering, Other
142500	Petroleum Engineering, Other
142600	Surveying and Mapping Sciences, Other
142611	Cartography
142700	Systems Engineering, Other
142800	Textile Engineering, Other
149900	Engineering, Other
260100	Biology, Other General
260111	Science 7
260121	Biology, Basic 1
260122	Biology, Basic 2
260131	Biology, General 1

260132	Biology, General 2
260141	Biology, Honors 1
260142	Biology, Advanced
260151	Field Biology
260161	Genetics
260171	Biopsychology
260181	Biology Seminar
260200	Biochemistry and Biophysics, Other
260211	Biochemistry
260300	Botany, Other
260311	Botany
260411	Cell Biology
260500	Microbiology, Other
260511	Microbiology
260600	Miscellaneous Specialized Areas, Life Sciences, Other
260611	Ecology
260621	Marine Biology
260622	Marine Biology, Advanced
260631	Anatomy
260700	Zoology, Other
260711	Zoology
260721	Zoology, Vertebrate
260731	Zoology, Invertebrate
260741	Animal Behavior
260751	Physiology, Human
260752	Physiology, Advanced
260761	Pathology
260771	Comparative Embryology
269900	Life Sciences, Other
300100	Biological and Physical Sciences, Other
300111	Science, Unified
300112	College Pre-Science Skills
300121	Science Study, Independent
300131	Outdoor Education
300300	Engineering and Other DiscIplines, Other
300311	Engineering Concepts
300600	Systems Science, Other
300611	Futuristics
300621	Environmental Science
300631	Energy and Environment
400100	Physical Sciences, Other General
400111	Science 8
400121	Physical Science
400131	Chemistry and Physics Laboratory Techniques
400141	Physical Science, Applied
400200	Astronomy, Other
400211	Astronomy
400300	Astrophysics, Other
400400	Atmospheric Sciences and Meteorology, Other

400411	Meteorology
400500	Chemistry, Other
400511	Chemistry, Introductory
400521	Chemistry 1
400522	Chemistry 2
400531	Organic Chemistry
400541	Physical Chemistry
400551	Consumer Chemistry
400561	Chemistry, Independent Study
400600	Geological Sciences, Other
400611	Earth Science
400621	Earth Science, College Preparatory
400631	Geology
400632	Geology - Field Studies
400641	Mineralogy
400700	Miscellaneous Physical Sciences, Other
400711	Oceanography
400800	Physics, Other
400811	Physics, General
400821	Physics 1
400822	Physics 2
400831	Physics 2 without Calculus
400841	Electricity and Electronics Science
400851	Acoustics
400900	Planetary Science, Other
400911	Rocketry and Space Science
401011	Aerospace Science
409900	Physical Sciences, Other
410100	Biological Technologies, Other
410200	Nuclear Technologies, Other
410211	Radioactivity
410300	Physical Science Technologies, Other
419900	Science Technologies, Other

F2RBIO_C Total Carnegie Units in Biology

CSSC CODE	TITLE
260100	Biology, Other General
260111	Science 7
260121	Biology, Basic 1
260122	Biology, Basic 2
260131	Biology, General 1
260132	Biology, General 2
260141	Biology, Honors 1
260142	Biology, Advanced
260151	Field Biology
260161	Genetics
260171	Biopsychology
260181	Biology Seminar
260200	Biochemistry and Biophysics, Other
260211	Biochemistry
260300	Botany, Other
260311	Botany
260411	Cell Biology
260500	Microbiology, Other
260511	Microbiology
260600	Miscellaneous Specialized Areas, Life Sciences, Other
260611	Ecology
260621	Marine Biology
260622	Marine Biology, Advanced
260631	Anatomy
260700	Zoology, Other
260711	Zoology
260721	Zoology, Vertebrate
260731	Zoology, Invertebrate
260741	Animal Behavior
260751	Physiology, Human
260752	Physiology, Advanced
260761	Pathology
260771	Comparative Embryology
269900	Life Sciences, Other

F2RCHE_C Total Carnegie Units in Chemistry

CSSC CODE	TITLE
400131	Chemistry and Physics Laboratory Techniques
400500	Chemistry, Other
400511	Chemistry, Introductory
400521	Chemistry 1
400522	Chemistry 2
400531	Organic Chemistry
400541	Physical Chemistry
400551	Consumer Chemistry
400561	Chemistry, Independent Study

F2RPHY_C Total Carnegie Units in Physics

CSSC CODE	TITLE
400800	Physics, Other
400811	Physics, General
400821	Physics 1
400822	Physics 2
400831	Physics 2 without Calculus
400841	Electricity and Electronics Science
400851	Acoustics

F2REAR_C Total Carnegie Units in Earth Science/Geology

400600	Geological Sciences, Other
400611	Earth Science
400621	Earth Science, College Preparatory
400631	Geology
400632	Geology - Field Studies
400641	Mineralogy
400700	Miscellaneous Physical Sciences, Other
400711	Oceanography

F2ROSC_C Total Carnegie Units in Other Science Courses

This variable was constructed by subtracting **F2REAR_C, F2RBIO_C, F2RCHE_C, and F2RPHY_C from F2RSCI_C.**

F2RSOC_C Total Carnegie Units in Social Studies

CSSC CODE	TITLE
050100	Area Studies, Other
050101	Area Studies
050102	American Studies, Basic
050103	American Studies, General
050104	America's People and Problems
050105	American Studies, Honors
050106	New England Studies
050107	Old South
050108	American West
050109	Southwest United States
050110	Anglo America
050111	North America and Current Events
050112	North and South America
050113	Latin America
050114	World Studies 1
050115	World Studies 2
050116	World Studies, Honors
050117	Comparative World Cultures
050118	European Culture Studies, Basic
050119	European Culture Studies, General
050120	European Culture Studies, Honors
050121	Developing Nations
050122	African Area Studies
050123	Africa and South America
050124	Asian and African Cultural Studies, Basic
050125	Asian and African Cultural Studies, General
050126	Asian and African Cultural Studies, Honors
050127	Asian Studies
050128	History of China
050129	Asia, Africa and Mideast
050130	Africa and Middle East
050131	Middle Eastern Studies
050132	Middle East, War for Survival
050133	U S S R
050134	Soviet Union and China
050135	Soviet Union and Afro American Developing Nations
050136	History of Russia
050137	Neglected World
050138	Global Education
050139	Pacific Rim Nations
050140	Canadian Area Studies
050200	Ethnic Studies, Other
050211	Minorities in America
050221	Ethnic and Family Heritage
050231	Afro American Studies

050241	Economics of Afro Americans
050251	Indians of North America
050261	Jewish Historical Significance
050271	Mexican American Heritage
050281	Hawaiian
050291	Hawaiian Culture Studies, Modern
059900	Area and Ethnic Studies, Other
220100	Law, Other
220111	Law Fundamentals
220121	Law and You
220131	Street Law
300400	Humanities and Social Sciences, Other
300411	Humanities
300421	Humanities, European
300431	Humanities, American
300441	Humanities, African
300451	Humanities, Near East and Far East
300500	Peace Studies, Other
300700	Women's Studies, Other
300711	Women's Studies
300721	Women's Studies in Literature
380100	Philosophy, Other
380111	Philosophy
380121	Ethics
380131	Logic
380141	Epistemics
380151	Social Justice Issues
420100	Psychology, Other General
420111	Psychology
420112	Psychology, Advanced
420113	Abnormal Psychology
420200	Clinical Psychology, Other
420300	Cognitive Psychology, Other
420311	Psychology of Learning
420321	Educational Psychology
420400	Community Psychology, Other
420500	Comparative Psychology, Other
420600	Counseling Psychology, Other
420700	Developmental Psychology, Other
420711	Child Psychology
420721	Adolescent Psychology
420731	Adjustment Psychology
420800	Experimental Psychology, Other
420900	Industrial and Organizational Psychology, Other
421000	Personality Psychology, Other
421011	Historical Personalities and Ideas
421021	Humanistic Psychology
421100	Physiological Psychology, Other
421200	Psycholinguistics, Other

421300	Psychometrics, Other
421400	Psychopharmacology, Other
421411	Psychopharmacology
421500	Quantitative Psychology, Other
421600	Social Psychology, Other
421611	Social Psychology
429900	Psychology, Other
440100	Public Affairs, Other General
440200	Community Services, Other
440300	International Public Service, Other
440400	Public Administration, Other
440500	Public Policy Studies, Other
440600	Public Works, Other
440700	Social Work, Other
440711	Human Services
449900	Public Affairs, Other
450100	Social Sciences, Other General
450111	Social Science, Introduction
450121	Social Science, Advanced Theory and Research
450131	Social Science Seminar
450141	Social Studies, Independent Study
450200	Anthropology, Other
450211	Anthropology
450221	Comparative Cultural Patterns
450231	Anthropology, Myth and Magic
450241	Cultural Anthropology, Research
450300	Archaeology, Other
450311	Archaeology
450400	Criminology, Other
450500	Demography, Other
450511	Population Education
450600	Economics, Other
450601	Economics, Theory
450602	Economics and Economic Problems
450603	Consumer Economics
450606	Investment Economics
450607	Television and Economics
450608	Energy Education
450609	American Labor History
450610	Economics, Analysis and Criticism
450611	Economics, College
450612	International Economics
450700	Geography, Other
450701	Geography 8
450702	Geography, United States
450703	Geography, North American
450704	World Geography
450705	Geography, Western Hemisphere and Africa
450706	Geography, Eastern Hemisphere

450707	Physical Geography
450708	Economic and Political Geography
450709	Human and Cultural Geography
450710	Field Geography, Honors
450800	History, Other
450801	History and Geography 7
450802	Our Cultural Heritage 7
450803	Social Studies 7, Honors
450804	United States History 8
450805	Social Studies 8
450806	Social Studies 8, Honors
450807	United States History, State and Local
450808	United States History, Advanced Placement
450809	American History, Basic
450810	American History
450811	United States History 1
450812	United States History 2
450813	United States History, Honors
450814	American History, Advanced Placement
450815	Westward Movement
450816	Twentieth Century America
450817	Twenties and Thirties
450818	America Since 1945
450819	Nineteen Sixties
450820	Nineteen Seventies
450821	Reform in American History
450822	American Inquiries
450823	Historic Events, United States
450824	American Wars, Causes and Effects
450825	Civil War
450826	Civil War, Reconstruction and Industrialism
450827	War and Modern Consciousness
450828	World War II
450829	United States Military History 1
450830	United States Military History 2
450831	United States History, Field Study
450832	North American History
450833	Mexican History
450834	South American History
450835	World History
450836	World History, College
450837	World History, Modern
450838	World Civilization, Twentieth Century
450839	World Civilization, Twentieth Century, Honors
450840	Western Civilization 9
450841	Western Civilization 9, Honors
450842	Western Civilization, History
450843	Early Western Civilization
450844	Western Civilization, Advanced Placement

450845	Ancient and Classical World
450846	Ancient Greek History
450847	Rome and Her Empire
450848	Ancient History and Middle Ages
450849	English History
450850	English History, Honors
450851	French Revolution, Honors
450852	Modern Europe
450853	European History, Mid-Nineteenth Through
450854	European History, Twentieth Century
450855	European History, Advanced Readings
450856	European History, Modern, Advanced Placement
450857	Third World History
450858	African History
450859	Africa, Middle East and Latin America
450860	Latin American History
450861	Middle East History
450862	Israel, History
450863	Eastern Civilization
450864	Far East, History
450865	Asian History, Modern
450866	Pacific Lands, History
450867	Russian History
450868	World Leaders, Past and Present
450869	Historical Research
450900	International Relations, Other
450911	International Relations
450921	International Relations, Honors
450931	International Law
450941	Model Security Council, Local
450951	Model United Nations, Local
450952	Model United Nations, National
451000	Political Science and Government, Other
451001	Civics
451002	State and Local Government
451003	Government, Basic
451004	American Government
451005	Presidency
451006	Framework of the Constitution
451007	Individual vs State
451008	National State and Local Elections
451009	Elections, Politics and Morality, Honors
451010	Contemporary World Affairs
451011	American Foreign Policy
451012	Decision Making in a Crisis
451013	American Heritage, Honors
451014	Contemporary American Political Issues
451015	Contemporary American Political Issues, Honors
451016	American Government and Economics, Basic

451017	American Government and Economics
451018	American Government and Economics, Honors
451019	Comparative Political Systems, Basic
451020	Comparative World Governments
451021	Americanism vs Communism
451022	Americanism vs Communism, Honors
451023	Communism and Its Growth
451024	Civics, Honors
451025	Writings Influencing Government
451026	Government Internship
451027	Model Senate
451028	Political Leadership
451029	Political Science
451030	Political Science, Advanced Placement
451031	Political Science and Government -
451032	Political Turmoil
451033	Contemporary Issues, Basic Skills
451100	Sociology, Other
451111	American Social Problems, Introduction
451121	Sociology, General
451131	Sociology, Issues
451132	The Poor in America
451141	Mobility in Society
451151	Violence In America
451161	Death and Dying
451171	Sociology, Honors
451181	Sociology, Research
451200	Urban Studies, Other
451211	Urban Problems
451221	Urban Ecology
451231	Technology and Urbanization
459900	Social Sciences, Other

F2RHIS_C Total Carnegie Units in History

CSSC CODE	TITLE
050100	Area Studies, Other
050101	Area Studies
050102	American Studies, Basic
050103	American Studies, General
050104	America's People and Problems
050105	American Studies, Honors
050106	New England Studies
050107	Old South
050108	American West
050109	Southwest United States
050110	Anglo America
050111	North America and Current Events
050112	North and South America
050113	Latin America
050114	World Studies 1
050115	World Studies 2
050116	World Studies, Honors
050117	Comparative World Cultures
050118	European Culture Studies, Basic
050119	European Culture Studies, General
050120	European Culture Studies, Honors
050121	Developing Nations
050122	African Area Studies
050123	Africa and South America
050124	Asian and African Cultural Studies, Basic
050125	Asian and African Cultural Studies, General
050126	Asian and African Cultural Studies, Honors
050127	Asian Studies
050128	History of China
050129	Asia, Africa and Mideast
050130	Africa and Middle East
050131	Middle Eastern Studies
050132	Middle East, War for Survival
050133	U S S R
050134	Soviet Union and China
050135	Soviet Union and Afro American Developing Nations
050136	History of Russia
050137	Neglected World
050138	Global Education
050139	Pacific Rim Nations
050140	Canadian Area Studies
050200	Ethnic Studies, Other
050211	Minorities in America
050221	Ethnic and Family Heritage
050231	Afro American Studies

050241	Economics of Afro Americans
050251	Indians of North America
050261	Jewish Historical Significance
050271	Mexican American Heritage
050281	Hawaiian
050291	Hawaiian Culture Studies, Modern
059900	Area and Ethnic Studies, Other
450801	History and Geography 7
450802	Our Cultural Heritage 7
450803	Social Studies 7, Honors
450804	United States History 8
450805	Social Studies 8
450806	Social Studies 8, Honors
450807	United States History, State and Local
450808	United States History, Advanced Placement
450809	American History, Basic
450810	American History
450811	United States History 1
450812	United States History 2
450813	United States History, Honors
450814	American History, Advanced Placement
450815	Westward Movement
450816	Twentieth Century America
450817	Twenties and Thirties
450818	America Since 1945
450819	Nineteen Sixties
450820	Nineteen Seventies
450821	Reform in American History
450822	American Inquiries
450823	Historic Events, United States
450824	American Wars, Causes and Effects
450825	Civil War
450826	Civil War, Reconstruction and Industrialism
450827	War and Modern Consciousness
450828	World War II
450829	United States Military History 1
450830	United States Military History 2
450831	United States History, Field Study
450832	North American History
450833	Mexican History
450834	South American History
450835	World History
450836	World History, College
450837	World History, Modern
450838	World Civilization, Twentieth Century
450839	World Civilization, Twentieth Century, Honors
450840	Western Civilization 9
450841	Western Civilization 9, Honors
450842	Western Civilization, History

450843	Early Western Civilization
450844	Western Civilization, Advanced Placement
450845	Ancient and Classical World
450846	Ancient Greek History
450847	Rome and Her Empire
450848	Ancient History and Middle Ages
450849	English History
450850	English History, Honors
450851	French Revolution, Honors
450852	Modern Europe
450853	European History, Mid-Nineteenth Through
450854	European History, Twentieth Century
450855	European History, Advanced Readings
450856	European History, Modern, Advanced Placement
450857	Third World History
450858	African History
450859	Africa, Middle East and Latin America
450860	Latin American History
450861	Middle East History
450862	Israel, History
450863	Eastern Civilization
450864	Far East, History
450865	Asian History, Modern
450866	Pacific Lands, History
450867	Russian History
450868	World Leaders, Past and Present
450869	Historical Research

F2ROSO_C Total Carnegie Units in Social Studies Other than History

CSSC CODE	TITLE
220100	Law, Other
220111	Law Fundamentals
220121	Law and You
220131	Street Law
300400	Humanities and Social Sciences, Other
300411	Humanities
300421	Humanities, European
300431	Humanities, American
300441	Humanities, African
300451	Humanities, Near East and Far East
300500	Peace Studies, Other
300700	Women's Studies, Other
300711	Women's Studies
300721	Women's Studies in Literature
380100	Philosophy, Other
380111	Philosophy
380121	Ethics
380131	Logic
380141	Epistemics
380151	Social Justice Issues
420100	Psychology, Other General
420111	Psychology
420112	Psychology, Advanced
420113	Abnormal Psychology
420200	Clinical Psychology, Other
420300	Cognitive Psychology, Other
420311	Psychology of Learning
420321	Educational Psychology
420400	Community Psychology, Other
420500	Comparative Psychology, Other
420600	Counseling Psychology, Other
420700	Developmental Psychology, Other
420711	Child Psychology
420721	Adolescent Psychology
420731	Adjustment Psychology
420800	Experimental Psychology, Other
420900	Industrial and Organizational Psychology, Other
421000	Personality Psychology, Other
421011	Historical Personalities and Ideas
421021	Humanistic Psychology
421100	Physiological Psychology, Other
421200	Psycholinguistics, Other
421300	Psychometrics, Other
421400	Psychopharmacology, Other
421411	Psychopharmacology

421500	Quantitative Psychology, Other
421600	Social Psychology, Other
421611	Social Psychology
429900	Psychology, Other
440100	Public Affairs, Other General
440200	Community Services, Other
440300	International Public Service, Other
440400	Public Administration, Other
440500	Public Policy Studies, Other
440600	Public Works, Other
440700	Social Work, Other
440711	Human Services
449900	Public Affairs, Other
450100	Social Sciences, Other General
450111	Social Science, Introduction
450121	Social Science, Advanced Theory and Research
450131	Social Science Seminar
450141	Social Studies, Independent Study
450200	Anthropology, Other
450211	Anthropology
450221	Comparative Cultural Patterns
450231	Anthropology, Myth and Magic
450241	Cultural Anthropology, Research
450300	Archaeology, Other
450311	Archaeology
450400	Criminology, Other
450500	Demography, Other
450511	Population Education
450600	Economics, Other
450601	Economics, Theory
450602	Economics and Economic Problems
450603	Consumer Economics
450604	Filing Your Income Taxes
450605	Insurance Theory
450606	Investment Economics
450607	Television and Economics
450608	Energy Education
450609	American Labor History
450610	Economics, Analysis and Criticism
450611	Economics, College
450612	International Economics
450700	Geography, Other
450701	Geography 8
450702	Geography, United States
450703	Geography, North American
450704	World Geography
450705	Geography, Western Hemisphere and Africa
450706	Geography, Eastern Hemisphere
450707	Physical Geography

450708	Economic and Political Geography
450709	Human and Cultural Geography
450710	Field Geography, Honors
450900	International Relations, Other
450911	International Relations
450921	International Relations, Honors
450931	International Law
450941	Model Security Council, Local
450951	Model United Nations, Local
450952	Model United Nations, National
451000	Political Science and Government, Other
451001	Civics
451002	State and Local Government
451003	Government, Basic
451004	American Government
451005	Presidency
451006	Framework of the Constitution
451007	Individual vs State
451008	National State and Local Elections
451009	Elections, Politics and Morality, Honors
451010	Contemporary World Affairs
451011	American Foreign Policy
451012	Decision Making in a Crisis
451013	American Heritage, Honors
451014	Contemporary American Political Issues
451015	Contemporary American Political Issues, Honors
451016	American Government and Economics, Basic
451017	American Government and Economics
451018	American Government and Economics, Honors
451019	Comparative Political Systems, Basic
451020	Comparative World Governments
451021	Americanism vs Communism
451022	Americanism vs Communism, Honors
451023	Communism and Its Growth
451024	Civics, Honors
451025	Writings Influencing Government
451026	Government Internship
451027	Model Senate
451028	Political Leadership
451029	Political Science
451030	Political Science, Advanced Placement
451031	Political Science and Government -
451032	Political Turmoil
451033	Contemporary Issues, Basic Skills
451100	Sociology, Other
451111	American Social Problems, Introduction
451121	Sociology, General
451131	Sociology, Issues
451132	The Poor in America

451141	Mobility in Society
451151	Violence In America
451161	Death and Dying
451171	Sociology, Honors
451181	Sociology, Research
451200	Urban Studies, Other
451211	Urban Problems
451221	Urban Ecology
451231	Technology and Urbanization
459900	Social Sciences, Other

F2RCOM_C Total Carnegie Units in Computer Science/Programming/Data Processing

CSSC CODE	TITLE
070300	Business Data Processing and Related Programs, Other
070311	Computers In Business
070321	Business Data Processing 1
070322	Business Data Processing 2
070331	Business Computer Programming 1
070332	Business Computer Programming 2
070361	Keyboarding
110100	Computer and Information Sciences, Other General
110111	Computer Appreciation
110121	Computer Mathematics 1
110122	Computer Mathematics 2
110131	Computer Applications
110132	Computer Applications, Independent Study
110141	Computer Science, Advanced Placement
110151	Artificial Intelligence
110200	Computer Programming, Other
110211	Computer Programming 1
110212	Computer Programming 2
110213	Computer Programming 3
110221	FORTRAN, Introduction
110231	PASCAL, Introduction
110232	Advanced PASCAL
110241	BASIC, Introduction
110242	Advanced BASIC
110251	COBOL, Introduction
110252	Advanced COBOL
110261	LOGO, Introduction
110271	RPG Programming, Introduction
110300	Data Processing, Other
110311	Data Processing, Introduction
110312	Data Processing, Intermediate
110313	Data Processing, Advanced
110321	Computer Programming - Cooperative Education
110400	Information Sciences and Systems, Other
110500	Systems Analysis, Other
119900	Computer and Information Sciences, Other
150431	Computer-Assisted Design/Drafting (CAD)

F2RVGN_C **Total Carnegie Units in General Introductory Vocational Courses**

CSSC CODE	TITLE
010111	Agribusiness, Introduction
010311	Agricultural Production, General
020111	Agricultural Sciences, General
060100	Business and Management, Other General
060111	Business Introduction
060121	Business Law
060131	Business, Independent Study
060300	Banking and Finance, Other
060311	Financial Careers
080711	Distributive Education 1
170511	Health Occupations 1
320106	Cooperative Education 1
320107	Cooperative Education 2

F2RVAG_C Total Carnegie Units in Agriculture

CSSC CODE	TITLE
010100	Agricultural Business and Management, Other
010121	Agricultural Business Operation
010131	Farm and Ranch Management
010141	State and Community Agriculture
010151	Agricultural Mathematics
010161	Agricultural Microprocessing
010171	Agriculture Cooperatives
010172	Agricultural Cooperative Education II
010181	Agriculture, Independent Study
010182	SOEP - Supervised Occupational
010200	Agricultural Mechanics, Other
010211	Agricultural Mechanics, General
010212	Agricultural Mechanics 2
010213	Agricultural Mechanics 3
010214	Agricultural Mechanics 4
010221	Welding, Agricultural
010231	Power and Machinery, Agricultural
010241	Farm Construction
010251	Electricity and Electronics, Agricultural
010261	Soil and Water Mechanical Practices
010271	Surveying, Agricultural
010300	Agricultural Production, Other
010312	Agriculture Technology 1
010313	Agriculture Technology 2
010321	Animal Production
010331	Crop Production
010400	Agricultural Products and Processing, Other
010411	Agricultural Products and Processing I
010412	Agricultural Products and Processing II
010421	Agricultural Products and Processing -
010500	Agricultural Services and Supplies, Other
010511	Agricultural Supplies Marketing
010521	Animal Grooming
010600	Horticulture, Other
010611	Horticulture
010621	Floriculture
010631	Landscaping
010632	Landscaping, Advanced
010641	Greenhouse Management
010651	Nursery Operations and Management
010661	Horticultural Mechanics I
010662	Horticultural Mechanics II
010671	Turf Management
010681	Fruit and Vegetable Production
010700	International Agriculture, Other

019900	Agribusiness and Agricultural Production, Other
020100	Agricultural Sciences, Other General
020121	Agricultural Occupations 1
020122	Agricultural Occupations 2
020123	Agricultural Occupations 3
020124	Agricultural Occupations 4
020200	Animal Sciences, Other
020211	Animal Sciences 1
020212	Animal Sciences 2
020221	Livestock 9
020222	Livestock 10
020231	Poultry
020241	Dairy Production
020251	Nutrition and Feeds
020261	Horse Production
020262	Horseshoeing/Farrier Training
020271	Small Animal Production 1
020272	Small Animal Production 2
020281	Fish Production
020300	Food Sciences, Other
020400	Plant Sciences, Other
020411	Agronomy
020421	Ornamental Horticulture 1
020422	Ornamental Horticulture 2
020423	Ornamental Horticulture 3
020500	Soil Sciences, Other
020511	Soil Sciences, General
020521	Fertilizers and Chemicals
029900	Agricultural Sciences, Other
030100	Renewable Natural Resources, Other General
030200	Conservation and Regulation, Other
030211	Conservation and Regulation
030212	Environmental Management 1
030213	Environmental Management 2
030221	Environmental Management - Cooperative
030300	Fishing and Fisheries, Other
030311	Waterman Occupations
030400	Forestry Production and Processing, Other
030500	Forestry and Related Sciences, Other
030511	Forestry Science 1
030512	Forestry Science 2
030521	Forestry Occupations - Work Experience
030600	Wildlife Management, Other
030611	Wildlife Management
030621	Rural Recreation
039900	Renewable Natural Resources, Other

F2RVBU_C Total Carnegie Units in Business

CSSC CODE	TITLE
060141	Business Education, Cooperative
060200	Accounting, Other
060211	Accounting/Business Management Careers -
060331	Consumer Lending
060400	Business Administration and Management, Other
060411	Business Organization and Management
061000	Investments and Securities, Other
061011	Investments and Taxation
061800	Small Business Management and Ownership, Other
061811	Small Business Management
061900	Taxation, Other
070100	Accounting, Bookkeeping, and Related Programs, Other
070111	Bookkeeping 1
070112	Bookkeeping 2
070121	Accounting 1
070122	Accounting 2
070131	Accounting, College
070141	Bookkeeping and Accounting 1
070142	Bookkeeping and Accounting 2
070151	Recordkeeping 1
070152	Recordkeeping 2
070153	Personal Recordkeeping
070161	Office Machines
070162	Office Machines, Vocational
070200	Banking and Related Financial Programs, Other
070201	Banking & Financial Careers
070211	Bank Teller
070221	Financial Mathematics
070231	Bank Proof Operator
070241	Bank Data Entry Occupations
070251	Banking and Financial Careers - Cooperative
070341	Key Punch Operator
070351	Data Entry Operator 1
070352	Data Entry Operator 2
070371	Peripheral Computer Operator
070600	Secretarial and Related Programs, Other
070611	Shorthand 1
070612	Shorthand 2
070621	Transcription
070631	Secretarial Administration 1
070632	Secretarial Administration 2
070641	Word Processing 1
070642	Word Processing 2
070643	Word Processing 3
070651	Reprographics

070661	Legal Office Procedures
070662	Court Reporter
070671	Medical Office Procedures
070681	Legal/Medical Office Procedures
070700	Typing, General Office, and Related Programs,Other
070712	Typewriting 2
070713	Typewriting 3
070731	Office Procedures 1
070732	Office Procedures 2
070733	Simulated Office
070741	Office Education 1, Cooperative
070742	Office Education 2, Cooperative
079900	Business and Office, Other

070661	Legal Office Procedures
070662	Court Reporter
070671	Medical Office Procedures
070681	Legal/Medical Office Procedures
070700	Typing, General Office, and Related Programs,Other
070712	Typewriting 2
070713	Typewriting 3
070731	Office Procedures 1
070732	Office Procedures 2
070733	Simulated Office
070741	Office Education 1, Cooperative
070742	Office Education 2, Cooperative
079900	Business and Office, Other

081221	Automotive Professional Training
089900	Marketing and Distribution, Other
090200	Advertising, Other
090211	Advertising
120200	Entertainment Services, Other
310100	Parks and Recreation, Other General
310111	Recreation Aide
310121	Search and Rescue
310200	Outdoor Recreation, Other
310211	Winter/Ski Resort Operation
310300	Parks and Recreation Management, Other
310400	Water Resources, Other
319900	Parks and Recreation, Other

F2RVHE_C Total Carnegie Units in Health and Human Resources

120300	Funeral Services, Other
170100	Dental Services, Other
170111	Dental Assistant 1
170112	Dental Assistant 2
170121	Dental Assistant, Cooperative
170131	Dental Technology 1
170132	Dental Technology 2
170200	Diagnostic and Treatment Services, Other
170211	First Aid
170221	EKG Technician
170311	Laboratory Program 1
170312	Laboratory Program 2
170400	Mental Health/Human Services, Other
170411	Home Health Aide
170421	Community Health
170431	Mental Health Worker
170500	Miscellaneous Allied Health Services, Other
170521	Health Occupations 2
170522	Central Service Technician
170531	Medical Terminology
170541	Medical Records Secretary
170551	Medical Assisting
170561	Sports Medicine
170571	Veterinary Science
170581	Chemistry for Health Science
170591	Health Occupations, Independent Study
170592	Health Occupations - Cooperative Education 1
170593	Health Occupations - Cooperative Education 2
170600	Nursing-Related Services, Other
170621	Nursing, Practical
170631	Nurse's Aide and Orderly
170641	Nurse's Aide, Cooperative
170651	Nurse's Mathematics
170700	Ophthalmic Services, Other
170711	Optical Services Assistant
170800	Rehabilitation Services, Other
179900	Allied Health, Other
430100	Criminal Justice, Other
430111	Law Enforcement
430121	Law Science
430200	Fire Protection, Other
430211	Fire Fighting Practices
430221	Fire Safety Education
430311	Security Guard
439900	Protective Services, Other

F2RVHO_C Total Carnegie Units in Vocational Home Economics

040500	Interior Design, Other
040511	Interior Design
190100	Home Economics, Other General
190200	Business Home Economics, Other
190300	Family and Community Services, Other
190400	Family/Consumer Resource Management, Other
190500	Food Sciences and Human Nutrition, Other
190600	Human Environment and Housing, Other
190700	Individual and Family Development, Other
190800	International/Comparative Home Economics, Other
190900	Textiles and Clothing, Other
199900	Home Economics, Other
200193	Home Economics - Cooperative Education 1
200194	Home Economics - Cooperative Education 2
200200	Child Care and Guidance Management and Services, Other
200211	Child Care Services
200221	Child Care Aide
200231	Child Care Management
200241	Foster Care and Family Care
200251	Teacher Aide/Elementary
200252	Teacher Aide/Secondary
200261	Child Care - Cooperative Education 1
200262	Child Care - Cooperative Education 2
200300	Clothing, Apparel, and Textiles Management, Production, and Services,
200311	Clothing Occupations 1
200312	Clothing Occupations 2
200313	Clothing Occupations 3
200314	Clothing Occupations - Cooperative Education 1
200315	Clothing Occupations - Cooperative Education 2
200321	Clothing Maintenance Aide
200331	Commercial Garment and Apparel Construction
200341	Custom Apparel Construction
200351	Custom Tailoring and Alteration
200361	Wedding and Specialty Consulting
200371	Fashion and Fabric Coordination
200381	Textiles Testing
200391	Clothing Production Management
200400	Food Production, Management and Services, Other
200411	Food Service Training
200412	Food Service Training 2
200413	Food Services/Restaurant Management
200421	Food Service Cooperative Training
200431	Baking
200441	Chef
200451	Catering
200461	Dietetic Aide
200471	Food Testing

200481	School Food Service
200500	Home Furnishings and Equipment Management, Production, and Services,
200511	Housing and Interior Design 1
200512	Housing and Interior Design 2
200513	Interior Design Occupations
200521	Floral Design
200531	Home Decorating
200541	Home Furnishings Aide
200551	Custom Drapery and Window Treatment Design
200561	Custom Slipcovering and Upholstering
200571	Home-Service Assisting 1
200572	Home Service Assisting 2
200573	Home Service Asst - Cooperative Education 1
200574	Home Service Asst - Cooperative Education 2
200600	Institutional, Home Management, and Supporting
200611	Custodial Services
200621	Executive Housekeeping
200631	Homemaker's Aide
200641	Companion to the Aged
200642	Geriatrics 2
200643	Geriatrics - Cooperative Education 1
200644	Geriatrics - Cooperative Education 2
200651	Consumer Aide
200661	Therapeutic Recreation Aide
200671	Institutional, Home Management Support Services -
209900	Vocational Home Economics, Other

F2RVTR_C Total Carnegie Units in Trade and Industry

120100	Dry Cleaning and Laundering Services, Other
120111	Dry Cleaning 1
120112	Dry Cleaning 2
120400	Personal Services, Other
120412	Cosmetology 2
120413	Cosmetology 3
120414	Cosmetology - Cooperative Education 2
120415	Cosmetology - Cooperative Education 2
120421	Barbering 1
120422	Barbering 2
120423	Barbering 3
120431	Personal Services Occupations
120511	General Services Occupations 1
120512	General Services Occupations 2
120513	General Services Occupations 3
120514	General Services Occupations 4
120521	Building & Grounds Maintenance
120522	Building & Grounds Maintenance
120531	Industrial Maintenance/Mechanics 1
120532	Industrial Maintenance/Mechanics 2
129900	Consumer, Personal, and Miscellaneous Services, Other
150100	Architectural Technologies, Other
150111	Structural Engineering Technician
150200	Civil Technologies, Other
150211	Surveying
150221	Civil Engineering Technician
150300	Electrical and Electronic Technologies, Other
150311	Audio Electronics
150321	Electrical Technology
150331	Electronic Technology 1
150332	Electronic Technology 2
150333	Electronics Fabrication
150341	Electrical/Electronics Engineering Technician
150400	Electromechanical Instrumentation and Maintenance
150411	Electromechanical Technology 1
150412	Electromechanical Technology 2
150421	Instrumentation Technology
150500	Environmental Control Technologies, Other
150511	Environmental Control Technologies
150600	Industrial Production Technologies, Other
150601	Industrial Research & Development
150611	Industrial Production Technology 1
150612	Industrial Production Technology 2
150631	Optics Technology
150700	Quality Control and Safety Technologies, Other
150711	Quality Control Technology
150800	Mechanical and Related Technologies, Other

150811	Automotive Design & Technology
150821	Mechanical Engineering Technology
150900	Mining and Petroleum Technologies, Other
150911	Mining Technology
150921	Petroleum Technology
159900	Engineering and Engineering-Related Technologies, Other
210110	Industrial Occupations 2
210111	Industrial Cooperative Work Experience
210112	Industrial Cooperative Work Experience, Advanced
210121	Machine Shop 1
210122	Machine Shop 2
210123	Machine Shop 3
210124	Machine Shop 4
210125	Industrial Education Management Trainee
210130	Electricity - Cooperative Education 1
210131	Electricity - Cooperative Education 2
210140	Electronics - Cooperative Education 1
210141	Electronics - Cooperative Education 2
210150	Electricity/Electronics - Cooperative
210151	Electricity/Electronics - Cooperative
460100	Brickmasonry, Stonemasonry, and Tile Setting,Other
460111	Masonry 1
460112	Masonry 2
460113	Masonry 3
460121	Tile Setting and Plastering
460131	Concrete Technician
460200	Carpentry, Other
460211	Carpentry 1
460212	Carpentry 2
460213	Carpentry 3
460300	Electrical and Power Transmission Installation, Other
460311	Housewiring 1
460312	Housewiring 2
460321	Electric Power and Communications Lineworker
460400	Miscellaneous Construction Trades, Other
460411	Building Construction 1
460412	Building Construction 2
460413	Building Construction 3
460421	Painting and Decorating
460422	Flooring Installation
460431	Building Maintenance
460451	Building Construction - Cooperative Education 1
460452	Building Construction - Cooperative Education 2
460500	Plumbing, Pipefitting, and Steamfitting, Other
460511	Plumbing 1
460512	Plumbing 2
469900	Construction Trades, Other
470100	Electrical and Electronics Equipment Repair, Other
470111	Small Appliance Repair

470121	Radio and TV Repair 1
470122	Radio and TV Repair 2
470123	Radio and TV Repair 3
470124	Telecommunications Technician
470131	Appliance Repair 1
470132	Appliance Repair 2
470141	Vending Machine Repair
470151	Business Machine Repair
470161	Industrial Electricity
470171	Industrial Electronics
470181	Food Processing Machine Maintenance Technician
470200	Heating, Air Conditioning, and Refrigeration
470211	Air Conditioning, Refrigeration, and Heating
470212	Air Conditioning, Refrigeration, and Heating, Advanced
470213	Air Conditioning, Refrigeration and Heating 3
470300	Industrial Equipment Maintenance and Repair, Other
470311	Industrial Mechanics 1
470312	Industrial Mechanics 2
470321	Diesel Mechanics
470331	Industrial Maintenance Mechanics 1
470332	Industrial Maintenance Mechanics 2
470341	Petroleum Drilling Equipment Operation
470342	Petroleum Drilling Equipment Operation
470400	Miscellaneous Mechanics and Repairers, Other
470411	Musical Instrument Repair
470421	Instrument Maintenance and Repair
470431	Shoe Repair and Orthopedics 1
470432	Shoe Repair and Orthopedics 2
470433	Watch and Clock Repair
470434	Bicycle Repair
470500	Stationary Energy Sources, Other
470511	Power Mechanics 1
470512	Power Mechanics 2
470513	Power Mechanics 3
470514	Power Mechanics 4
470521	Hydraulics and Pneumatics
470600	Vehicle and Mobile Equipment Mechanics and
470611	Small Engine Repair 1
470612	Small Engine Repair 2
470622	Auto Mechanics 2
470623	Auto Mechanics 3
470624	Auto Mechanics - Cooperative Education 1
470625	Auto Mechanics - Cooperative Education 2
470631	Auto Body 1
470632	Auto Body 2
470633	Auto Body 3
470641	Auto Service 1
470642	Auto Service 2
470661	Airframes 1

470662	Airframes 2
470671	Aviation Powerplant 1
470672	Aviation Powerplant 2
470673	Aviation Powerplant 3
470674	Aviation Powerplant 4
470681	Aviation Quality Control 1
470682	Aviation Quality Control 2
470691	Aircraft Sheetmetal 1
470692	Aircraft Sheetmetal 2
479900	Mechanics and Repairers, Other
480100	Drafting, Other
480112	Mechanical Drawing 2
480113	Mechanical Drawing 3
480114	Mechanical Drawing 4
480121	Architectural Drawing 1
480122	Architectural Drawing 2
480123	Architectural Drawing 3
480124	Architectural Drawing 4
480131	Engineering Drawing 1
480132	Engineering Drawing 2
480141	Blueprint Reading
480151	Drafting 1, Cooperative
480152	Drafting 2, Cooperative
480200	Graphic and Printing Communications, Other
480211	Commercial Art 1
480212	Commercial Art 2
480213	Commercial Art, Cooperative
480214	Commercial Art 3
480221	Graphic Arts 1
480222	Graphic Arts 2
480223	Graphic Arts 3
480224	Graphic Arts 4
480231	Sign Painting 1
480232	Sign Painting 2
480233	Sign Painting 3
480241	Bindery
480251	Electronic Composition
480261	Copy Editing
480300	Leatherworking and Upholstering, Other
480312	Leatherwork 2
480321	Upholstery
480322	Upholstery, Advanced
480331	Auto Upholstery
480400	Precision Food Production, Other
480411	Meatcutting 1
480412	Meatcutting 2
480500	Precision Metal Work, Other
480512	Metal 2
480513	Metal 3

480514	Metal 4
480521	Welding 1
480522	Welding 2
480523	Welding 3
480524	Welding - Cooperative Education
480531	Sheet Metal 1
480532	Sheet Metal 2
480541	Metal Restoration
480551	Foundry 1
480552	Foundry 2
480600	Precision Work, Assorted Materials, Other
480611	Plastics 1
480612	Plastics 2
480621	Space Age Plastics
480700	Woodworking, Other
480712	Woodworking 2
480713	Woodworking 3
480714	Woodworking 4
480721	Furniture Refinishing
480731	Cabinetmaking 1
480732	Cabinetmaking 2
489900	Precision Production, Other
490121	Aviation Technology 1
490122	Aviation Technology 2
490123	Aviation Technology 3
490124	Aviation Technology 4
490131	Air Travel Service Occupations
490141	Aircraft Parts Management 1
490142	Aircraft Parts Management 2
490200	Vehicle and Equipment Operation, Other
490211	Forklift Operator
490212	Tractor-Trailer Truck Driving
490213	Heavy Vehicle Operation/Earth Moving Equipment
490214	Bus Driver/Chauffeur
490300	Water Transportation, Other
490311	Marine Mechanics, Basic
490312	Marine Mechanics, Advanced
490321	Boat Building
490331	Navigation
490341	Aquatic Occupations
490411	Introduction to Transportation Industry
490412	Transportation Technology 2
490421	Transportation/Traffic Technician
499900	Transportation and Material Moving, Other

F2RVTE_C Total Carnegie Units in Technical

080781	Telephone Service Representative
080782	Telephone Directory Assistant
100100	Communication Technologies, Other
100141	Broadcast Management 1
100142	Broadcast Management 2
100143	Broadcasting Practicum
100161	Radio Production
100171	Television Production 1
100172	Television Production 2
100173	Television Production 3
100174	Television Production 4
100181	Cable Television
100191	Radio/Television Production 1
100192	Radio/Television Production 2
150621	Chemical Manufacturing Technology
170300	Medical Laboratory Technologies, Other
170321	Chemical Technology 1
170322	Chemical Technology 2

Appendix I

NELS:88 Second Follow-Up

Transcript Component Codebooks

NELS:88 Second Follow-Up

Transcript Component Student File Codebook

Question STU_ID

Tape Pos. 1-7
Format: I7

STU_ID STUDENT ID

Public student ID.

Question F2SCH_ID

Tape Pos. 8-12
Format: I5

F2SCH_ID PUBLIC ID OF LAST ATT. SCH.

Public ID of last attended school.

Question F2TRSCWT

Tape Pos. 13-22
Format: R10.4

F2TRSCWT TRANSCRIPT WEIGHT

Transcript Weight.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
2.2148 TO 12532.0768	000001.00	17285	100.0%	100.0%
TOTALS:		17285	100.0%	100.0%

NOTE: The two transcript panel weight variables, F2TRP1WT (grades 8-12) and F2TRP2WT (grades 10-12), are located at the end of the record.

Question F2RAB88

Tape Pos. 23-26
Format: R4.1

F2RAB88 NUMBER OF DAYS ABSENT, 88-89

Number of days absent during 88-89 school year

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	001.0	975	5.6%	9.9%
00.5 TO 05.0	002.0	3504	20.3%	32.6%
05.5 TO 10.0	003.0	2458	14.2%	24.4%
10.5 TO 20.0	004.0	1910	11.1%	20.1%
20.5 TO 40.0	005.0	727	4.2%	9.9%
40.5 TO 60.0	006.0	161	0.9%	2.2%
60.5 TO 144.0	007.0	74	0.4%	0.9%
RESERVED CODES:				
MISSING DATA	999.8	7476	43.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. In the data file, values have been rounded to the nearest whole or half day. Values were temporarily collapsed for display in this user's manual.

Question F2RAB89

Tape Pos. 27-30
Format: R4.1

F2RAB89 NUMBER OF DAYS ABSENT, 89-90

Number of days absent during 89-90 school year

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	001.0	863	5.0%	8.0%
00.5 TO 05.0	002.0	3446	19.9%	32.4%
05.5 TO 10.0	003.0	2422	14.0%	23.4%
10.5 TO 20.0	004.0	2111	12.2%	22.7%
20.5 TO 40.0	005.0	860	5.0%	9.8%
40.5 TO 60.0	006.0	174	1.0%	2.3%
60.5 TO 170.0	007.0	121	0.7%	1.4%
RESERVED CODES:				
MISSING DATA	999.8	7288	42.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. In the data file, values have been rounded to the nearest whole or half day. Values were temporarily collapsed for display in this user's manual.

Question F2RAB90

Tape Pos. 31-34
Format: R4.1

F2RAB90 NUMBER OF DAYS ABSENT, 90-91

Number of days absent during 90-91 school year

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	001.0	671	3.9%	6.4%
00.5 TO 05.0	002.0	3151	18.2%	29.3%
05.5 TO 10.0	003.0	2328	13.5%	23.4%
10.5 TO 20.0	004.0	2254	13.0%	24.8%
20.5 TO 40.0	005.0	981	5.7%	12.1%
40.5 TO 60.0	006.0	189	1.1%	2.6%
60.5 TO 160.0	007.0	110	0.6%	1.4%
RESERVED CODES:				
MISSING DATA	999.8	7601	44.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. In the data file, values have been rounded to the nearest whole or half day. Values were temporarily collapsed for display in this user's manual.

Question F2RAB91

Tape Pos. 35-38
Format: R4.1

F2RAB91 NUMBER OF DAYS ABSENT, 91-92

Number of days absent during 91-92 school year

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	001.0	473	2.7%	5.2%
00.5 TO 05.0	002.0	2771	16.0%	26.9%
05.5 TO 10.0	003.0	2474	14.3%	25.5%
10.5 TO 20.0	004.0	2600	15.0%	25.9%
20.5 TO 40.0	005.0	1097	6.3%	12.9%
40.5 TO 60.0	006.0	187	1.1%	2.2%
60.5 TO 129.0	007.0	85	0.5%	1.3%
RESERVED CODES:				
MISSING DATA	999.8	7598	44.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. In the data file, values have been rounded to the nearest whole or half day. Values were temporarily collapsed for display in this user's manual.

Question F2RSPFLC

Tape Pos. 39-40
Format: I2

F2RSPFLC SPECIALIZED COURSES OR PROGRAMS

Participation in specialized courses or programs.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SPECIAL EDUCATION	01	607	3.5%	4.7%
BILINGUAL EDUCATION	02	302	1.7%	1.6%
GIFTED EDUCATION	03	1423	8.2%	7.1%
SPECIAL EDUCATION AND BILINGUAL EDUCATION	04	8	0.0%	0.0%
BILINGUAL EDUCATION AND GIFTED EDUCATION	05	45	0.3%	0.1%
NONE OF THE ABOVE	06	14600	84.5%	86.5%
RESERVED CODES:				
MISSING DATA	98	300	1.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RRANK

Tape Pos. 41-44
Format: I4

F2RRANK CLASS RANK FOR LAST YEAR ATTENDED

Class rank for last year attended

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
1 TO 807	0001	13393	77.5%	100.0%
RESERVED CODES:				
MISSING DATA	9998	3892	22.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

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Question F2RCSIZE

Tape Pos. 45-48
Format: I4

F2RCSIZE CLASS SIZE FOR LAST YEAR ATTENDED

Class size for last year attended

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
1 TO 1438	0001	14149	81.9%	100.0%
RESERVED CODES:				
MISSING DATA	9998	3136	18.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: this item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

Question F2RDTLMO

Tape Pos. 49-50
Format: I2

F2RDTLMO MONTH STUDENT LEFT SCHOOL

Month student left school

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
JANUARY	01	304	1.8%	2.6%
FEBRUARY	02	215	1.2%	1.7%
MARCH	03	221	1.3%	2.1%
APRIL	04	185	1.1%	1.4%
MAY	05	4944	28.6%	27.7%
JUNE	06	9209	53.3%	54.9%
JULY	07	102	0.6%	0.8%
AUGUST	08	313	1.8%	2.2%
SEPTEMBER	09	306	1.8%	2.6%
OCTOBER	10	204	1.2%	1.7%
NOVEMBER	11	154	0.9%	1.3%
DECEMBER	12	136	0.8%	1.1%
RESERVED CODES:				
MISSING DATA	98	572	3.3%	(MISS)
LEGITIMATE SKIP	99	420	2.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RDTLYR

Tape Pos. 51-52
Format: I2

F2RDTLYR YEAR STUDENT LEFT SCHOOL

Year student left school

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
1988	88	9	0.1%	0.1%
1989	89	309	1.8%	2.7%
1990	90	626	3.6%	5.0%
1991	91	940	5.4%	7.3%
1992	92	14488	83.8%	85.0%
1993	93	8	0.0%	0.1%
RESERVED CODES:				
MISSING DATA	98	485	2.8%	(MISS)
LEGITIMATE SKIP	99	420	2.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RREASL

Tape Pos. 53-54
Format: I2

F2RREASL REASON STUDENT LEFT SCHOOL

Indicates the reason the student left school.

For some sample members, this item (and F2RTROUT, which is derived from F2RREASL) may appear to be inconsistent with F2DOSTAT. The majority of inconsistencies can be attributed to the disjunct data collection periods for the two items, and to differences between the NELS:88 and transcript schools' dropout definition. See F2TRSTYP for both elucidation and resolution of inconsistencies between F2RTROUT (transcript-indicated outcome) and F2DOSTAT. (Also, see Chapter 6 and Appendix C of the Second Follow-Up: Transcript Component Data File User's Manual for a discussion of F2TRSTYP as it relates to discrepancies between F2DOSTAT and F2RTROUT.)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
STANDARD DIPLOMA	01	13660	79.0%	75.6%
HONORS DIPLOMA	02	240	1.4%	1.1%
DIPLOMA WITH SPECIAL EDUCATION ADJUSTMENTS	03	22	0.1%	0.2%
CERTIFICATE OF ATTENDANCE	04	9	0.1%	0.1%
STILL ENROLLED	05	420	2.4%	3.1%
DROPPED OUT	06	2003	11.6%	15.7%
TRANSFERRED	07	424	2.5%	3.3%
AGED OUT	08	25	0.1%	0.1%
DIED	09	4	0.0%	0.0%
HEALTH REASON	10	10	0.1%	0.1%
RECEIVED GED	11	35	0.2%	0.2%
OTHER	12	87	0.5%	0.6%
RESERVED CODES:				
MISSING DATA	98	346	2.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RRLVRB

Tape Pos. 55-74
Format: A20

F2RRLVRB VERBATIM OTHER REASON FOR LEAVING SCHOOL

Verbatim other reason for leaving school

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA PRESENT	1	67	0.4%	100.0%
RESERVED CODES:				
MISSING DATA	8	17218	99.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: The verbatim responses to this item are in the datafile but there are too many unique responses to display in this codebook. As with any other variable, users can select and extract this variable and subsequently review it. For example, PROC PRINT in SAS may be used for such a list either in hardcopy or electronic output.

Question F2RGPA

Tape Pos. 75-79
Format: R5.2

F2RGPA CUMULATIVE GPA FOR LAST YEAR ATTENDED

Cumulative GPA for last year attended

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
0 TO 108.98	001.00	13583	78.6%	100.0%
RESERVED CODES:				
MISSING DATA	999.98	3702	21.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

Cumulative GPA has not been standardized. Some values exceed 100 percent, because of quality points awarded for advanced courses.

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Question F2RPSATM

Tape Pos. 80-81
Format: I2

F2RPSATM PSAT MATH

Preliminary Scholastic Aptitude Test (mathematics)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	807	4.7%	16.6%
31 TO 40	02	1946	11.3%	36.1%
41 TO 50	03	1872	10.8%	33.1%
51 TO 60	04	857	5.0%	11.3%
61 TO 70	05	245	1.4%	2.4%
71 TO 80	06	44	0.3%	0.5%
RESERVED CODES:				
MISSING DATA	98	11514	66.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 20 to 80.

Question F2RPSATV

Tape Pos. 82-83
Format: I2

F2RPSATV PSAT VERBAL

Preliminary Scholastic Aptitude Test (verbal)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	425	2.5%	11.1%
31 TO 40	02	1379	8.0%	26.2%
41 TO 50	03	1836	10.6%	32.4%
51 TO 60	04	1368	7.9%	20.7%
61 TO 70	05	654	3.8%	8.4%
71 TO 80	06	113	0.7%	1.1%
RESERVED CODES:				
MISSING DATA	98	11510	66.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 20 to 80.

Question F2RSATM

Tape Pos. 84-86
Format: I3

F2RSATM SCHOLASTIC APTITUDE TEST (MATHEMATICS)

Scholastic Aptitude Test (mathematics)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
200 TO 300	001	596	3.4%	12.1%
310 TO 400	002	1410	8.2%	28.2%
410 TO 500	003	1809	10.5%	34.6%
510 TO 600	004	1250	7.2%	19.0%
610 TO 700	005	507	2.9%	5.3%
710 TO 780	006	85	0.5%	0.7%
RESERVED CODES:				
MISSING DATA	998	11628	67.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 200 to 800.

Question F2RSATV

Tape Pos. 87-89
Format: I3

F2RSATV SCHOLASTIC APTITUDE TEST (VERBAL)

Scholastic Aptitude Test (verbal)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
200 TO 300	001	245	1.4%	6.0%
310 TO 400	002	1058	6.1%	22.8%
410 TO 500	003	1470	8.5%	27.8%
510 TO 600	004	1564	9.0%	25.6%
610 TO 700	005	1001	5.8%	14.4%
710 TO 800	006	317	1.8%	3.4%
RESERVED CODES:				
MISSING DATA	998	11630	67.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 200 to 800.

Question F2RACTC

Tape Pos. 90-91
Format: I2

F2RACTC ACT (COMPOSITE)

American College Test (composite score)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
01 TO 05	01	1	0.0%	0.0%
06 TO 10	02	5	0.0%	0.1%
11 TO 15	03	428	2.5%	11.2%
16 TO 20	04	1777	10.3%	40.0%
21 TO 25	05	1549	9.0%	32.5%
26 TO 30	06	805	4.7%	14.3%
31 TO 36	07	140	0.8%	2.0%
RESERVED CODES:				
MISSING DATA	98	12580	72.8%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 1 to 36.

Question F2RACTE

Tape Pos. 92-93
Format: I2

F2RACTE ACT (ENGLISH SCORE)

American College Test (English score)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
01 TO 05	01	1	0.0%	0.0%
06 TO 10	02	70	0.4%	2.7%
11 TO 15	03	653	3.8%	15.1%
16 TO 20	04	1574	9.1%	33.9%
21 TO 25	05	1378	8.0%	31.2%
26 TO 30	06	815	4.7%	15.2%
31 TO 36	07	126	0.7%	1.8%
RESERVED CODES:				
MISSING DATA	98	12668	73.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 1 to 36.

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Question F2RACTM

Tape Pos. 94-95
Format: I2

F2RACTM ACT (MATH SCORE)

American College Test (mathematics score)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
06 TO 10	02	8	0.0%	0.1%
11 TO 15	03	604	3.5%	14.1%
16 TO 20	04	1761	10.2%	43.0%
21 TO 25	05	1363	7.9%	27.2%
26 TO 30	06	735	4.3%	12.9%
31 TO 36	07	146	0.8%	2.7%
RESERVED CODES:				
MISSING DATA	98	12668	73.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 1 to 36.

Question F2RACTR

Tape Pos. 96-97
Format: I2

F2RACTR ACT (READING)

American College Test (reading score)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
01 TO 05	01	2	0.0%	0.0%
06 TO 10	02	72	0.4%	1.5%
11 TO 15	03	590	3.4%	15.6%
16 TO 20	04	1378	8.0%	29.6%
21 TO 25	05	1316	7.6%	28.3%
26 TO 30	06	821	4.7%	15.8%
31 TO 36	07	437	2.5%	9.1%
RESERVED CODES:				
MISSING DATA	98	12669	73.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 1 to 36.

Question F2RACTS

Tape Pos. 98-99
Format: I2

F2RACTS ACT (SCIENCE REASONING)

American College Test (science reasoning score)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
06 TO 10	02	7	0.0%	0.2%
11 TO 15	03	384	2.2%	8.8%
16 TO 20	04	1785	10.3%	43.0%
21 TO 25	05	1603	9.3%	32.5%
26 TO 30	06	680	3.9%	13.0%
31 TO 36	07	151	0.9%	2.5%
RESERVED CODES:				
MISSING DATA	98	12675	73.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

The valid range for this test score is 1 to 36.

Question F2RAPBIO

Tape Pos. 100-101
Format: I2

F2RAPBIO AP EXAM: BIOLOGY

Advanced Placement Exam: biology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	10	0.1%	5.6%
SCORE 2	02	23	0.1%	37.7%
SCORE 3	03	37	0.2%	22.4%
SCORE 4	04	37	0.2%	20.3%
SCORE 5	05	33	0.2%	14.1%
RESERVED CODES:				
MISSING	98	17145	99.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPCHE

Tape Pos. 102-103
Format: I2

F2RAPCHE AP EXAM: CHEMISTRY

Advanced Placement Exam: chemistry

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	4	0.0%	4.1%
SCORE 2	02	10	0.1%	37.7%
SCORE 3	03	25	0.1%	27.0%
SCORE 4	04	18	0.1%	14.3%
SCORE 5	05	18	0.1%	16.9%
RESERVED CODES:				
MISSING	98	17210	99.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPCGP

Tape Pos. 104-105
Format: I2

F2RAPCGP AP EXAM: COMP. GOVT. AND POLITICS

Advanced Placement Exam: comparative government and politics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	2	0.0%	3.2%
SCORE 3	03	5	0.0%	20.0%
SCORE 4	04	4	0.0%	13.7%
SCORE 5	05	6	0.0%	63.1%
RESERVED CODES:				
MISSING	98	17268	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPCSA

Tape Pos. 106-107
Format: I2

F2RAPCSA AP EXAM: COMPUTER SCIENCE A

Advanced Placement Exam: computer science A

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	1	0.0%	5.1%
SCORE 2	02	3	0.0%	11.9%
SCORE 3	03	2	0.0%	10.3%
SCORE 4	04	3	0.0%	23.0%
SCORE 5	05	7	0.0%	49.7%
RESERVED CODES:				
MISSING	98	17269	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPCSB

Tape Pos. 108-109
Format: I2

F2RAPCSB AP EXAM: COMPUTER SCIENCE AB

Advanced Placement Exam: computer science AB

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	1	0.0%	1.7%
SCORE 3	03	4	0.0%	23.9%
SCORE 4	04	2	0.0%	17.1%
SCORE 5	05	6	0.0%	57.8%
RESERVED CODES:				
MISSING	98	17272	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPLIT

Tape Pos. 110-111
Format: I2

F2RAPLIT AP EXAM: ENGLISH LITERATURE AND COMP.

Advanced Placement Exam: English literature and composition

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	2	0.0%	1.5%
SCORE 2	02	34	0.2%	16.3%
SCORE 3	03	96	0.6%	54.1%
SCORE 4	04	39	0.2%	16.6%
SCORE 5	05	53	0.3%	11.4%
RESERVED CODES:				
MISSING	98	17061	98.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

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Question   F2RAPLAN                               Tape Pos. 112-113
--------------------                              Format: I2

F2RAPLAN   AP EXAM: ENGLISH LANGUAGE AND COMP.

Advanced Placement Exam: English language and composition

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           3      0.0%    2.9%
SCORE 2........................       02           8      0.0%   15.9%
SCORE 3........................       03          38      0.2%   45.0%
SCORE 4........................       04          23      0.1%   26.9%
SCORE 5........................       05          15      0.1%    9.4%
 RESERVED CODES:
   MISSING.....................       98       17198     99.5% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
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--------------------
Question   F2RAPEUH                               Tape Pos. 114-115
--------------------                              Format: I2

F2RAPEUH   AP EXAM: EUROPEAN HISTORY

Advanced Placement Exam: European history

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           2      0.0%   13.3%
SCORE 2........................       02           7      0.0%    5.2%
SCORE 3........................       03          55      0.3%   46.1%
SCORE 4........................       04          37      0.2%   20.1%
SCORE 5........................       05          14      0.1%   15.3%
 RESERVED CODES:
   MISSING.....................       98       17170     99.3% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPFLA                               Tape Pos. 116-117
--------------------                              Format: I2

F2RAPFLA   AP EXAM: FRENCH LANGUAGE

Advanced Placement Exam: French language

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           2      0.0%    7.2%
SCORE 2........................       02           7      0.0%   24.2%
SCORE 3........................       03          17      0.1%   39.2%
SCORE 4........................       04          11      0.1%   17.8%
SCORE 5........................       05          11      0.1%   11.6%
 RESERVED CODES:
   MISSING.....................       98       17237     99.7% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPFLI                               Tape Pos. 118-119
--------------------                              Format: I2

F2RAPFLI   AP EXAM: FRENCH LITERATURE

Advanced Placement Exam: French literature

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           3      0.0%    7.9%
SCORE 2........................       02           3      0.0%    3.3%
SCORE 3........................       03           5      0.0%   82.1%
SCORE 4........................       04           4      0.0%    5.7%
SCORE 5........................       05           2      0.0%    1.0%
 RESERVED CODES:
   MISSING.....................       98       17268     99.9% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPGER                               Tape Pos. 120-121
--------------------                              Format: I2

F2RAPGER   AP EXAM: GERMAN LANGUAGE

Advanced Placement Exam: German language

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 2........................       02           1      0.0%   29.1%
SCORE 3........................       03           2      0.0%   35.7%
SCORE 4........................       04           2      0.0%   35.2%
 RESERVED CODES:
   MISSING.....................       98       17280    100.0% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPHAR                               Tape Pos. 122-123
--------------------                              Format: I2

F2RAPHAR   AP EXAM: HISTORY OF ART

Advanced Placement Exam: history of art

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           1      0.0%    1.4%
SCORE 2........................       02           3      0.0%    4.7%
SCORE 3........................       03          20      0.1%   56.5%
SCORE 4........................       04           8      0.0%   22.3%
SCORE 5........................       05           8      0.0%   15.1%
 RESERVED CODES:
   MISSING.....................       98       17245     99.8% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPLCA                               Tape Pos. 124-125
--------------------                              Format: I2

F2RAPLCA   AP EXAM: LATIN/CATULLUS HORACE

Advanced Placement Exam: Latin/Catullus Horace

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           2      0.0%   14.2%
SCORE 2........................       02           3      0.0%   65.3%
SCORE 3........................       03           3      0.0%   12.9%
SCORE 4........................       04           1      0.0%    4.1%
SCORE 5........................       05           1      0.0%    3.6%
 RESERVED CODES:
   MISSING.....................       98       17275     99.9% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPLVE                               Tape Pos. 126-127
--------------------                              Format: I2

F2RAPLVE   AP EXAM: LATIN/VERGIL

Advanced Placement Exam: Latin/Vergil

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           3      0.0%   42.7%
SCORE 2........................       02           4      0.0%   24.6%
SCORE 3........................       03           9      0.1%   15.7%
SCORE 4........................       04           4      0.0%    6.7%
SCORE 5........................       05           7      0.0%   10.2%
 RESERVED CODES:
   MISSING.....................       98       17258     99.8% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPMAC                               Tape Pos. 128-129
--------------------                              Format: I2

F2RAPMAC   AP EXAM: MACROECONOMICS

Advanced Placement Exam: macroeconomics

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           1      0.0%    2.6%
SCORE 3........................       03           7      0.0%   34.4%
SCORE 4........................       04           3      0.0%   28.9%
SCORE 5........................       05           4      0.0%   34.1%
 RESERVED CODES:
   MISSING.....................       98       17270     99.9% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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--------------------
Question   F2RAPCAB                               Tape Pos. 130-131
--------------------                              Format: I2

F2RAPCAB   AP EXAM: MATHEMATICS: CALCULUS BC

Advanced Placement Exam: mathematics: calculus BC

                                                           PER-    WGTD
   RESPONSE                          CODES      FREQ      CENT    PCT
  ----------                       ---------   -----     -----   -----
SCORE 1........................       01           4      0.0%    2.1%
SCORE 2........................       02           2      0.0%    5.1%
SCORE 3........................       03          21      0.1%   32.8%
SCORE 4........................       04          17      0.1%   24.0%
SCORE 5........................       05          23      0.1%   36.0%
 RESERVED CODES:
   MISSING.....................       98       17218     99.6% (MISS)
                                               -----     -----   -----
 TOTALS:                                       17285    100.0% 100.0%
```

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Question F2RAPCAA

Tape Pos. 132-133
Format: I2

F2RAPCAA AP EXAM: MATHEMATICS: CALCULUS AB

Advanced Placement Exam: mathematics: calculus AB

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	14	0.1%	17.8%
SCORE 2	02	20	0.1%	30.3%
SCORE 3	03	35	0.2%	19.5%
SCORE 4	04	43	0.2%	16.8%
SCORE 5	05	41	0.2%	15.6%
RESERVED CODES:				
MISSING	98	17132	99.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPMIC

Tape Pos. 134-135
Format: I2

F2RAPMIC AP EXAM: MICROECONOMICS

Advanced Placement Exam: microeconomics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	2	0.0%	29.3%
SCORE 2	02	3	0.0%	7.3%
SCORE 3	03	4	0.0%	41.7%
SCORE 4	04	4	0.0%	21.7%
RESERVED CODES:				
MISSING	98	17272	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPMLL

Tape Pos. 136-137
Format: I2

F2RAPMLL AP EXAM: MUSIC LISTENING AND LIT.

Advanced Placement Exam: music listening and literature

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 3	03	2	0.0%	87.9%
SCORE 4	04	1	0.0%	6.1%
SCORE 5	05	1	0.0%	6.1%
RESERVED CODES:				
MISSING	98	17281	100.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPMT

Tape Pos. 138-139
Format: I2

F2RAPMT AP EXAM: MUSIC THEORY

Advanced Placement Exam: music theory

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	1	0.0%	22.1%
SCORE 4	04	1	0.0%	77.9%
RESERVED CODES:				
MISSING	98	17283	100.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPPB

Tape Pos. 140-141
Format: I2

F2RAPPB AP EXAM: PHYSICS B

Advanced Placement Exam: physics B

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	2	0.0%	19.8%
SCORE 3	03	6	0.0%	10.9%
SCORE 4	04	4	0.0%	28.2%
SCORE 5	05	10	0.1%	41.1%
RESERVED CODES:				
MISSING	98	17263	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPPCE

Tape Pos. 142-143
Format: I2

F2RAPPCE AP EXAM: PHYSICS C: E & M

Advanced Placement Exam: physics C: E & M

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	3	0.0%	23.3%
SCORE 2	02	1	0.0%	3.6%
SCORE 3	03	3	0.0%	18.6%
SCORE 4	04	7	0.0%	37.5%
SCORE 5	05	4	0.0%	17.0%
RESERVED CODES:				
MISSING	98	17267	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPPCM

Tape Pos. 144-145
Format: I2

F2RAPPCM AP EXAM: PHYSICS C: MECHANICS

Advanced Placement Exam: physics C: mechanics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	1	0.0%	9.5%
SCORE 2	02	2	0.0%	11.1%
SCORE 3	03	6	0.0%	18.1%
SCORE 4	04	6	0.0%	29.2%
SCORE 5	05	8	0.0%	32.2%
RESERVED CODES:				
MISSING	98	17262	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPPSY

Tape Pos. 146-147
Format: I2

F2RAPPSY AP EXAM: PSYCHOLOGY

Advanced Placement Exam: psychology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	1	0.0%	6.9%
SCORE 2	02	1	0.0%	17.7%
SCORE 4	04	2	0.0%	26.0%
SCORE 5	05	3	0.0%	49.4%
RESERVED CODES:				
MISSING	98	17278	100.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPSLA

Tape Pos. 148-149
Format: I2

F2RAPSLA AP EXAM: SPANISH LANGUAGE

Advanced Placement Exam: Spanish language

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	2	0.0%	3.6%
SCORE 2	02	8	0.0%	28.1%
SCORE 3	03	21	0.1%	28.4%
SCORE 4	04	13	0.1%	32.6%
SCORE 5	05	7	0.0%	7.3%
RESERVED CODES:				
MISSING	98	17234	99.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPSLI

Tape Pos. 150-151
Format: I2

F2RAPSLI AP EXAM: SPANISH LITERATURE

Advanced Placement Exam: Spanish literature

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	1	0.0%	37.7%
SCORE 3	03	3	0.0%	49.2%
SCORE 4	04	3	0.0%	3.1%
SCORE 5	05	2	0.0%	9.9%
RESERVED CODES:				
MISSING	98	17276	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPSAG

Tape Pos. 152-153
Format: I2

F2RAPSAG AP EXAM: STUDIO ART: GENERAL

Advanced Placement Exam: studio art: general

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	1	0.0%	3.6%
SCORE 3	03	2	0.0%	9.9%
SCORE 4	04	1	0.0%	18.9%
SCORE 5	05	4	0.0%	67.6%
RESERVED CODES:				
MISSING	98	17277	100.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPSAD

Tape Pos. 154-155
Format: I2

F2RAPSAD AP EXAM: STUDIO ART: DRAWING

Advanced Placement Exam: studio art: drawing

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 2	02	1	0.0%	66.9%
SCORE 3	03	2	0.0%	25.3%
SCORE 4	04	1	0.0%	7.9%
RESERVED CODES:				
MISSING	98	17281	100.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPUSG

Tape Pos. 156-157
Format: I2

F2RAPUSG AP EXAM: US GOVERNMENT AND POLITICS

Advanced Placement Exam: United States government and politics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	4	0.0%	5.0%
SCORE 2	02	8	0.0%	55.7%
SCORE 3	03	14	0.1%	12.6%
SCORE 4	04	14	0.1%	13.5%
SCORE 5	05	12	0.1%	13.2%
RESERVED CODES:				
MISSING	98	17233	99.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RAPUSH

Tape Pos. 158-159
Format: I2

F2RAPUSH AP EXAM: US HISTORY

Advanced Placement Exam: United States history

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SCORE 1	01	12	0.1%	4.0%
SCORE 2	02	75	0.4%	36.0%
SCORE 3	03	96	0.6%	31.9%
SCORE 4	04	90	0.5%	20.7%
SCORE 5	05	37	0.2%	7.5%
RESERVED CODES:				
MISSING	98	16975	98.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2RACHM1

Tape Pos. 160-161
Format: I2

F2RACHM1 ACH TEST: MATHEMATICS 1

College Board Achievement Test Score: mathematics level 1

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
31 TO 40	02	41	0.2%	7.6%
41 TO 50	03	202	1.2%	23.3%
51 TO 60	04	340	2.0%	39.7%
61 TO 70	05	222	1.3%	26.9%
71 TO 80	06	27	0.2%	2.5%
RESERVED CODES:				
MISSING	98	16453	95.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHM2

Tape Pos. 162-163
Format: I2

F2RACHM2 ACH TEST: MATHEMATICS 2

College Board Achievement Test Score: mathematics level 2

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	1	0.0%	1.4%
31 TO 40	02	6	0.0%	2.3%
41 TO 50	03	25	0.1%	5.2%
51 TO 60	04	94	0.5%	19.6%
61 TO 70	05	204	1.2%	41.6%
71 TO 80	06	173	1.0%	29.9%
RESERVED CODES:				
MISSING	98	16782	97.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACH2C

Tape Pos. 164-165
Format: I2

F2RACH2C ACH TEST: MATHEMATICS 2C

College Board Achievement Test Score: mathematics level 2C

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
51 TO 60	04	3	0.0%	2.2%
61 TO 70	05	8	0.0%	62.5%
71 TO 80	06	8	0.0%	35.3%
RESERVED CODES:				
MISSING	98	17266	99.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHPH

Tape Pos. 166-167
Format: I2

F2RACHPH ACH TEST: PHYSICS

College Board Achievement Test Score: physics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
31 TO 40	02	1	0.0%	0.1%
41 TO 50	03	18	0.1%	12.4%
51 TO 60	04	33	0.2%	41.3%
61 TO 70	05	40	0.2%	29.2%
71 TO 80	06	27	0.2%	17.0%
RESERVED CODES:				
MISSING	98	17166	99.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

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Question F2RACHCH

Tape Pos. 168-169
Format: I2

F2RACHCH ACH TEST: CHEMISTRY

College Board Achievement Test Score: chemistry

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	1	0.0%	0.4%
31 TO 40	02	4	0.0%	2.0%
41 TO 50	03	64	0.4%	29.1%
51 TO 60	04	76	0.4%	30.0%
61 TO 70	05	97	0.6%	29.5%
71 TO 80	06	37	0.2%	8.8%
RESERVED CODES:				
MISSING	98	17006	98.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHBY

Tape Pos. 170-171
Format: I2

F2RACHBY ACH TEST: BIOLOGY

College Board Achievement Test Score: biology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
31 TO 40	02	9	0.1%	3.0%
41 TO 50	03	43	0.2%	14.5%
51 TO 60	04	110	0.6%	45.4%
61 TO 70	05	105	0.6%	28.2%
71 TO 80	06	40	0.2%	8.9%
RESERVED CODES:				
MISSING	98	16978	98.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHEN

Tape Pos. 172-173
Format: I2

F2RACHEN ACH TEST: ENGLISH: MULTIPLE CHOICE

College Board Achievement Test Score: English composition-multiple choice

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	3	0.0%	0.5%
31 TO 40	02	96	0.6%	11.3%
41 TO 50	03	261	1.5%	29.5%
51 TO 60	04	340	2.0%	34.7%
61 TO 70	05	202	1.2%	19.7%
71 TO 80	06	59	0.3%	4.4%
RESERVED CODES:				
MISSING	98	16324	94.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHES

Tape Pos. 174-175
Format: I2

F2RACHES ACH TEST: ENGLISH: MULT. CHOICE/ESSAY

College Board Achievement Test Score: English composition-multiple choice/essay

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	4	0.0%	0.6%
31 TO 40	02	39	0.2%	11.5%
41 TO 50	03	131	0.8%	40.0%
51 TO 60	04	178	1.0%	30.3%
61 TO 70	05	105	0.6%	16.3%
71 TO 80	06	14	0.1%	1.4%
RESERVED CODES:				
MISSING	98	16814	97.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHLR

Tape Pos. 176-177
Format: I2

F2RACHLR ACH TEST: LITERATURE

College Board Achievement Test Score: literature

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
20 TO 30	01	1	0.0%	1.6%
31 TO 40	02	9	0.1%	8.1%
41 TO 50	03	35	0.2%	38.3%
51 TO 60	04	40	0.2%	22.3%
61 TO 70	05	51	0.3%	29.3%
71 TO 80	06	4	0.0%	0.5%
RESERVED CODES:				
MISSING	98	17145	99.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

Question F2RACHAH

Tape Pos. 178-179
Format: I2

F2RACHAH ACH TEST: AMERICAN HIST./SOC. STUDIES

College Board Achievement Test Score: American history and social studies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
31 TO 40	02	27	0.2%	10.6%
41 TO 50	03	86	0.5%	21.1%
51 TO 60	04	136	0.8%	43.1%
61 TO 70	05	94	0.5%	21.0%
71 TO 80	06	17	0.1%	4.2%
RESERVED CODES:				
MISSING	98	16925	97.9%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual.

The valid range for this test score is 20 to 80.

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Question   F2RACHEH                             Tape Pos. 180-181
-------------------                             Format: I2

F2RACHEH   ACH TEST: EUROPEAN HIST./WRLD CULTURES

College Board Achievement Test Score: European history and
world cultures

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
41 TO 50......................           03        11     0.1%   20.4%
51 TO 60......................           04         9     0.1%   49.7%
61 TO 70......................           05         4     0.0%   28.2%
71 TO 80......................           06         2     0.0%    1.8%
 RESERVED CODES:
   MISSING....................           98     17259    99.8% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
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-------------------
Question   F2RACHFR                             Tape Pos. 182-183
-------------------                             Format: I2

F2RACHFR   ACH TEST: FRENCH

College Board Achievement Test Score: French

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
31 TO 40......................           02        11     0.1%    5.5%
41 TO 50......................           03        42     0.2%   26.1%
51 TO 60......................           04        60     0.3%   40.8%
61 TO 70......................           05        45     0.3%   20.8%
71 TO 80......................           06        28     0.2%    6.7%
 RESERVED CODES:
   MISSING....................           98     17099    98.9% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
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-------------------
Question   F2RACHGM                             Tape Pos. 184-185
-------------------                             Format: I2

F2RACHGM   ACH TEST: GERMAN

College Board Achievement Test Score: German

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
31 TO 40......................           02         2     0.0%   12.2%
41 TO 50......................           03         4     0.0%   55.3%
51 TO 60......................           04         4     0.0%   29.6%
61 TO 70......................           05         2     0.0%    2.2%
71 TO 80......................           06         1     0.0%    0.8%
 RESERVED CODES:
   MISSING....................           98     17272    99.9% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
```

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-------------------
Question   F2RACHLT                             Tape Pos. 186-187
-------------------                             Format: I2

F2RACHLT   ACH TEST: LATIN

College Board Achievement Test Score: Latin

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
31 TO 40......................           02         2     0.0%   12.9%
41 TO 50......................           03         6     0.0%   11.6%
51 TO 60......................           04         9     0.1%   25.7%
61 TO 70......................           05        11     0.1%   44.9%
71 TO 80......................           06         6     0.0%    4.8%
 RESERVED CODES:
   MISSING....................           98     17251    99.8% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
```

```
-------------------
Question   F2RACHSP                             Tape Pos. 188-189
-------------------                             Format: I2

F2RACHSP   ACH TEST: SPANISH

College Board Achievement Test Score: Spanish

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
20 TO 30......................           01         1     0.0%    0.3%
31 TO 40......................           02        13     0.1%   22.0%
41 TO 50......................           03        30     0.2%   36.2%
51 TO 60......................           04        48     0.3%   21.8%
61 TO 70......................           05        37     0.2%   11.9%
71 TO 80......................           06        15     0.1%    7.8%
 RESERVED CODES:
   MISSING....................           98     17141    99.2% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
```

```
-------------------
Question   F2RACHMH                             Tape Pos. 190-191
-------------------                             Format: I2

F2RACHMH   ACH TEST: MODERN HEBREW

College Board Achievement Test Score: modern Hebrew

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
20 TO 30......................           01         1     0.0%    3.8%
31 TO 40......................           02         1     0.0%    3.8%
51 TO 60......................           04         1     0.0%   12.1%
61 TO 70......................           05         3     0.0%   46.2%
71 TO 80......................           06         2     0.0%   34.1%
 RESERVED CODES:
   MISSING....................           98     17277   100.0% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
```

```
-------------------
Question   F2RACHIT                             Tape Pos. 192-193
-------------------                             Format: I2

F2RACHIT   ACH TEST: ITALIAN

College Board Achievement Test Score: Italian

                                                          PER-    WGTD
     RESPONSE                         CODES      FREQ     CENT    PCT
    ----------                      ---------   -----    -----   -----
31 TO 40......................           02         1     0.0%   20.6%
61 TO 70......................           05         1     0.0%   75.3%
71 TO 80......................           06         1     0.0%    4.1%
 RESERVED CODES:
   MISSING....................           98     17282   100.0% (MISS)
                                                -----    -----  -----
 TOTALS:                                        17285   100.0% 100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual.

The valid range for this test score is 20 to 80.
```

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Question F2UNIV1

Tape Pos. 194-197
Format: I4

F2UNIV1 SAMPLE MEMBER STATUS IN ALL THREE WAVES

Indicates simultaneously the base year, first follow-up and second follow-up situation of every student sample member ever in the study. This variable has 107 valid values that account for every pattern encountered in NELS:88. Note however that there are gaps in the range of codes displayed in the student codebooks and on the files for different components. Value labels in the codebooks begin with BY status, followed by F1 and then F2 status. SAS and SPSS-X value labels follow the same sequence but are, of necessity, much shorter. See Appendix H of the Second Follow-up: Student Component Data File User's Manual for a list of abbreviations.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
BY INELIG F1 IN-SCHL, IN-GRADE F2 IN-SCHL, IN-GRADE.........	0001	72	0.4%	0.8%
BY INELIG F1 IN-SCHL, IN-GRADE F2 IN-SCHL, OUT-OF-GRADE.....	0002	1	0.0%	0.0%
BY INELIG F1 IN-SCHL, IN-GRADE F2 DROPOUT....................	0003	19	0.1%	0.2%
BY INELIG F1 IN-SCHL, IN-GRADE F2 STATUS UNK................	0006	3	0.0%	0.0%
BY ELIG F1 IN-SCHL, OUT-OF-GRADE F2 IN-SCHL, IN-GRADE.........	0007	191	1.1%	1.6%
BY ELIG F1 IN-SCHL, OUT-OF-GRADE F2 IN-SCHL, OUT-OF-GRADE.....	0005	114	0.7%	..1%
BY ELIG F1 IN-SCHL, OUT-OF-GRADE F2 DROPOUT....................	0009	235	1.4%	1.6%
BY ELIG F1 IN-SCHL, OUT-OF-GRADE F2 STATUS UNK................	0012	8	0.0%	0.1%
BY ELIG F1 DROPOUT F2 IN-SCHL, IN-GRADE.........	0013	20	0.1%	0.2%
BY ELIG F1 DROPOUT F2 IN-SCHL, OUT-OF-GRADE.....	0014	10	0.1%	0.3%
BY ELIG F1 DROPOUT F2 DROPOUT....................	0015	433	2.5%	3.5%
BY ELIG F1 DROPOUT F2 STATUS UNK................	0018	35	0.2%	0.4%
BY ELIG F1 INELIG F2 IN-SCHL, IN-GRADE.........	0019	3	0.0%	0.0%
BY ELIG F1 INELIG F2 DROPOUT....................	0021	5	0.0%	0.1%
BY ELIG F1 OUT-OF-SCOPE F2 IN-SCHL, IN-GRADE.........	0025	5	0.0%	0.0%
BY ELIG F1 OUT-OF-SCOPE F2 DROPOUT....................	0027	9	0.1%	0.1%
BY ELIG F1 OUT-OF-SCOPE F2 STATUS UNK................	0030	4	0.0%	0.0%
BY ELIG F1 STATUS UNK F2 IN-SCHL, IN-GRADE.........	0031	345	2.0%	2.2%
BY ELIG F1 STATUS UNK F2 IN-SCHL, OUT-OF-GRADE.....	0032	11	0.1%	0.1%
BY ELIG F1 STATUS UNK F2 DROPOUT....................	0033	49	0.3%	0.3%
BY ELIG F1 STATUS UNK F2 STATUS UNK................	0036	5	0.0%	0.0%
BY ELIG F1 IN-SCHL, IN-GRADE F2 IN-SCHL, IN-GRADE.........	0037	13518	78.2%	71.1%
BY ELIG F1 IN-SCHL, IN-GRADE F2 IN-SCHL, OUT-OF-GRADE.....	0038	148	0.9%	1.5%
BY ELIG F1 IN-SCHL, IN-GRADE F2 DROPOUT....................	0039	963	5.6%	7.1%
BY ELIG F1 IN-SCHL, IN-GRADE F2 STATUS UNK................	0042	11	0.1%	0.1%
BY NA F1 FRESHENED IN-SCHL, IN-GRADE F2 IN SCHL, IN-GRADE.........	0043	380	2.2%	2.5%
BY NA F1 FRESHENED IN-SCHL, IN-GRADE F2 IN SCHL, OUT-OF-GRADE.....	0044	27	0.2%	0.2%
BY NA F1 FRESHENED IN-SCHL, IN-GRADE F2 DROPOUT....................	0045	149	0.9%	0.8%
BY NA F1 FRESHENED IN-SCHL, IN-GRADE F2 STATUS UNK................	0048	7	0.0%	0.1%
BY NA F1 FRESHENED INELIG F2 IN SCHL, IN-GRADE.........	0049	2	0.0%	0.0%
BY NA F1 FRESHENED INELIG F2 DROPOUT....................	0051	2	0.0%	0.0%
BY NA F1 FRESHENED DROPOUT F2 IN SCHL, IN-GRADE.........	0055	4	0.0%	0.1%
BY NA F1 FRESHENED DROPOUT F2 DROPOUT....................	0057	109	0.6%	0.6%
BY NA F1 FRESHENED DROPOUT F2 STATUS UNK................	0060	9	0.1%	0.1%
BY NA F1 FRESHENED OUT-OF-SCOPE F2 IN SCHL, OUT-OF-GRADE.....	0062	1	0.0%	0.0%
BY NA F1 FRESHENED OUT-OF-SCOPE F2 DROPOUT....................	0063	1	0.0%	0.0%
BY NA F1 FRESHENED STATUS UNK F2 IN SCHL, IN-GRADE.........	0067	16	0.1%	0.1%
BY NA F1 FRESHENED STATUS UNK F2 IN SCHL, OUT-OF-GRADE.....	0068	1	0.0%	0.0%
BY NA F1 FRESHENED STATUS UNK F2 DROPOUT....................	0069	16	0.1%	0.1%
BY NA F1 FRESHENED STATUS UNK F2 STATUS UNK................	0072	3	0.0%	0.0%
BY NA F1 NA F2 FRESHENED IN-SCHL IN-GRADE	0073	210	1.2%	1.1%
BY NA F1 NA F2 FRESHENED DROPOUT.........	0074	11	0.1%	0.0%
BY INELIG F1 IN-SCHL, OUT-OF-GRADE F2 IN-SCHL, IN-GRADE.........	0078	8	0.0%	0.2%
BY INELIG F1 IN-SCHL, OUT-OF-GRADE F2 IN-SCHL, OUT-OF-GRADE.....	0079	3	0.0%	0.0%
BY INELIG F1 IN-SCHL, OUT-OF-GRADE F2 DROPOUT....................	0080	8	0.0%	0.1%
BY INELIG F1 IN-SCHL, OUT-OF-GRADE F2 STATUS UNK................	0083	1	0.0%	0.0%
BY INELIG F1 DROPOUT F2 IN-SCHL, OUT-OF-GRADE.....	0085	1	0.0%	0.1%
BY INELIG F1 DROPOUT F2 DROPOUT....................	0086	15	0.1%	0.2%
BY INELIG F1 DROPOUT F2 STATUS UNK................	0089	1	0.0%	0.0%
BY INELIG F1 INELIG F2 IN-SCHL, IN-GRADE.........	0090	20	0.1%	0.2%
BY INELIG F1 INELIG F2 IN-SCHL, OUT-OF-GRADE.....	0091	2	0.0%	0.0%
BY INELIG F1 INELIG F2 DROPOUT....................	0092	9	0.1%	0.1%
BY INELIG F1 INELIG F2 INELIG....................	0093	51	0.3%	0.9%
BY INELIG F1 STATUS UNK F2 INELIG....................	0105	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

Question F2UNIV2A

Tape Pos. 198-198
Format: I1

F2UNIV2A HOW STUDENT ENTERED THE SAMPLE

Indicates how the student sample member entered the sample.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
BY ELIGIBLE....................	1	16122	93.3%	91.3%
BY INELIGIBLE..................	2	215	1.2%	3.0%
F1 FRESHENED...................	3	727	4.2%	4.6%
F2 FRESHENED...................	4	221	1.3%	1.1%
TOTALS:		17285	100.0%	100.0%

Question F2UNIV2B

Tape Pos. 199-199
Format: I1

F2UNIV2B BASE YEAR STATUS OF SAMPLE MEMBER

Indicates base year status of sample member.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FRESHENED(F1/F2)..............	0	948	5.5%	5.7%
IN-SCHL IN-GRADE..............	1	16122	93.3%	91.3%
INELIGIBLE....................	4	215	1.2%	3.0%
TOTALS:		17285	100.0%	100.0%

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Question F2UNIV2C

Tape Pos. 200-201
Format: I2

F2UNIV2C F1 STATUS OF SAMPLE MEMBER

Indicates first follow-up status of sample member.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FRESHENED IN F2	00	221	1.3%	1.1%
IN-SCHL INGRADE	01	15298	88.5%	84.4%
IN-SCHL OUTGRADE	02	568	3.3%	4.7%
DROPOUT	03	637	3.7%	5.5%
INELIGIBLE	04	94	0.5%	1.4%
OUT-OF-SCOPE	05	20	0.1%	0.1%
STATUS UNKNOWN	06	447	2.6%	2.9%
TOTALS:		17285	100.0%	100.0%

Question F2UNIV2D

Tape Pos. 202-203
Format: I2

F2UNIV2D F2 STATUS OF SAMPLE MEMBER

Indicates second follow-up status of sample member.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
IN-SCH INGRADE	01	14794	85.6%	80.1%
IN-SCH OUTGRADE	02	319	1.8%	3.3%
DROPOUT	03	2033	11.8%	14.8%
INELIGIBLE	04	52	0.3%	0.9%
STATUS UNKNOWN	06	87	0.5%	0.9%
TOTALS:		17285	100.0%	100.0%

Question F2RWTST

Tape Pos. 204-204
Format: I1

F2RWTST F2 WEIGHTING ENROLLMENT STATUS

Sample member's F2 enrollment status (real and imputed) used in weighting

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
IN-SCHOOL IN GRADE	1	14794	85.6%	80.1%
IN-SCHOOL OUT OF GRADE	2	319	1.8%	3.3%
DROPOUT	3	2120	12.3%	15.8%
INELIGIBLE OR OUT-OF-SCOPE	4	52	0.3%	0.9%
TOTALS:		17285	100.0%	100.0%

Question F2BYQFLG

Tape Pos. 205-205
Format: I1

F2BYQFLG BASE YEAR QUESTIONNAIRE AVAILABLE

Indicates whether or not sample member completed a base year student questionnaire.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	2038	11.8%	14.2%
COMPLETED BY QUEX	1	15247	88.2%	85.8%
TOTALS:		17285	100.0%	100.0%

Question F2F1QFLG

Tape Pos. 206-206
Format: I1

F2F1QFLG F1 QUESTIONNAIRE AVAILABLE

Indicates whether or not sample member completed a first follow-up student or dropout questionnaire.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	1053	6.1%	9.4%
STUDENT QUEX COMPLETE	1	15636	90.5%	85.5%
DROPOUT QUEX COMPLETE	2	596	3.4%	5.1%
TOTALS:		17285	100.0%	100.0%

Question F2QFLG

Tape Pos. 207-207
Format: I1

F2QFLG F2 QUESTIONNAIRE AVAILABLE

Indicates whether or not sample member completed a second follow-up student or dropout questionnaire.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	879	5.1%	10.4%
STUDENT QUEX COMPLETE	1	14887	86.1%	78.8%
DROPOUT QUEX COMPLETE	2	1519	8.8%	10.8%
TOTALS:		17285	100.0%	100.0%

Question F2NSSFLG

Tape Pos. 208-208
Format: I1

F2NSSFLG F2 NEW STUDENT SUPPLEMENT AVAILABLE

Indicates whether or not sample member completed a second follow-up New Student Supplement (NSS).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SUPPLEMENT N/A OR MISSING	0	16745	96.9%	96.7%
SUPPLEMENT COMPLETED	1	540	3.1%	3.3%
TOTALS:		17285	100.0%	100.0%

Question F2BYTXFL

Tape Pos. 209-209
Format: I1

F2BYTXFL BASE YEAR STUDENT TESTS AVAILABLE

Indicates whether or not sample member completed the BY cognitive tests.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	2603	15.1%	17.1%
COMPLETED TESTS	1	14682	84.9%	82.9%
TOTALS:		17285	100.0%	100.0%

Question F2F1TXFL

Tape Pos. 210-210
Format: I1

F2F1TXFL F1 STUDENT TESTS AVAILABLE

Indicates whether or not sample member completed a first follow-up cognitive test.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	2072	12.0%	17.9%
COMPLETED TESTS	1	15213	88.0%	82.1%
TOTALS:		17285	100.0%	100.0%

Question F2TXFLG

Tape Pos. 211-211
Format: I1

F2TXFLG F2 STUDENT TESTS AVAILABLE

Indicates whether or not sample member completed a second follow-up cognitive test.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT COMPLETE	0	4263	24.7%	29.3%
COMPLETED TESTS	1	13022	75.3%	70.7%
TOTALS:		17285	100.0%	100.0%

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Question F2BYF1PN

Tape Pos. 212-212
Format: I1

F2BYF1PN BY AND F1 QUESTIONNAIRES AVAILABLE

Indicates whether or not sample member on second follow-up file is part of the base year/first follow-up panel sample (eighth grade [1988] to tenth grade [1990] longitudinal panel).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT BY / F1 PANEL MEMBER......	0	2558	14.8%	14.8%
BY / F1 PANEL MEMBER...........	1	14727	85.2%	85.2%
TOTALS:		17285	100.0%	100.0%

Question F2F1PNFL

Tape Pos. 213-213
Format: I1

F2F1PNFL F1 & F2 QUESTIONNAIRES AVAILABLE

Indicates whether or not sample member on second follow-up file is a member of the first follow-up/second follow-up panel sample (tenth grade [1990] to twelfth grade [1992] longitudinal panel).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT F1 / F2 PANEL MEMBER......	0	1650	9.5%	9.5%
F1 / F2 PANEL MEMBER, NOT IN 10TH GRADE.....................	1	1010	5.8%	5.8%
F1 / F2 PANEL MEMBER...........	2	14625	84.6%	84.6%
TOTALS:		17285	100.0%	100.0%

Question F2PNLFLG

Tape Pos. 214-214
Format: I1

F2PNLFLG BY & F1 & F2 QUESTIONNAIRES AVAILABLE

Indicates whether or not sample member on second follow-up file is a member of the base year/first follow-up/second follow-up panel sample (participation in all three waves of NELS:88: eighth grade [1988], tenth grade [1990], and twelfth grade [1992]).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT BY / F1 / F2 PANEL MEMBER.	0	3002	17.4%	17.4%
BY / F1 / F2 PANEL MEMBER.....	1	14283	82.6%	82.6%
TOTALS:		17285	100.0%	100.0%

Question F2CXTFLG

Tape Pos. 215-215
Format: I1

F2CXTFLG SAMPLE MEMBER PART OF F2 CONTEXT SAMPLE

Indicates whether or not the sample member was part of the F2 contextual sample.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT A MEMBER..................	0	2194	12.7%	12.7%
MEMBER AND QUEX COMPLETE......	1	14591	84.4%	84.4%
MEMBER BUT NO QUEX COMPLETE...	2	500	2.9%	2.9%
TOTALS:		17285	100.0%	100.0%

Question G8COHORT

Tape Pos. 216-216
Format: I1

G8COHORT MEMBER 8TH GRADE IN-SCHOOL CLASS 87-88

Indicates whether or not sample member is a member of the 8th grade cohort (whether or not s/he was enrolled in the 8th grade during the 1987-88 school year)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT A MEMBER..................	0	948	5.5%	5.5%
SPRING MEMBER.................	1	16122	93.3%	93.3%
INELIGIBLE MEMBER.............	3	215	1.2%	1.2%
TOTALS:		17285	100.0%	100.0%

Question G10COHRT

Tape Pos. 217-217
Format: I1

G10COHRT MEMBER 10TH GRADE IN-SCHOOL CLASS 89-90

Indicates whether or not sample member is a member of the 10th grade cohort (whether or not s/he was enrolled in the 10th grade during the 1989-90 school year)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT A MEMBER..................	0	1778	10.3%	10.3%
SPRING MEMBER.................	1	15298	88.5%	88.5%
FALL MEMBER...................	2	122	0.7%	0.7%
INELIGIBLE MEMBER.............	3	87	0.5%	0.5%
TOTALS:		17285	100.0%	100.0%

Question G12COHRT

Tape Pos. 218-218
Format: I1

G12COHRT MEMBER 12TH GRADE IN-SCHOOL CLASS 91-92

Indicates whether or not sample member is a member of the 12th grade cohort (whether or not s/he was enrolled in the 12th grade during the 1991-92 school year)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT A MEMBER..................	0	2428	14.0%	14.0%
SPRING MEMBER.................	1	14794	85.6%	85.6%
FALL MEMBER...................	2	11	0.1%	0.1%
INELIGIBLE MEMBER.............	3	52	0.3%	0.3%
TOTALS:		17285	100.0%	100.0%

Question F2F1STAT

Tape Pos. 219-220
Format: I2

F2F1STAT STATUS OF SAMPLE MEMBER IN F1

Indicates final status in the first follow-up for sample members who appear on the file.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
PARTICIPATED..................	00	16232	93.9%	95.6%
OTHER NON-RESPONDENT..........	01	277	1.6%	1.6%
UNLOCATABLE...................	02	52	0.3%	0.3%
REFUSED.......................	03	388	2.2%	2.3%
INELIGIBLE....................	04	8	0.0%	0.0%
OUT OF COUNTRY................	05	20	0.1%	0.1%
RESERVED CODES:				
MISSING.....................	98	308	1.8%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2STAT

Tape Pos. 221-222
Format: I2

F2STAT STATUS OF SAMPLE MEMBER IN F2

Indicates final status in the second follow-up for sample members who appear on the file.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
PARTICIPATED..................	00	16406	94.9%	94.9%
OTHER NON-RESPONDENT..........	01	476	2.8%	2.8%
UNLOCATABLE...................	02	157	0.9%	0.9%
REFUSED.......................	03	194	1.1%	1.1%
INELIGIBLE....................	04	52	0.3%	0.3%
TOTALS:		17285	100.0%	100.0%

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Question F2F1DOST

Tape Pos. 223-224
Format: I2

F2F1DOST F1 DROPOUT STATUS

Indicates enrollment status, either dropout or student, as of the first follow-up ONLY. For more information on selecting dropouts by different dropout definitions, see Appendix D of the Second Follow-Up: Dropout Component Data File User's Manual.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT DROP OUT..............	00	15878	91.9%	89.9%
NOT DETERMINED..........	01	471	2.7%	3.0%
DROPOUT, RETURNED.............	02	76	0.4%	0.5%
HOMESTUDY.....................	03	7	0.0%	0.0%
SCHOOL REPORTED DROPOUT.......	04	32	0.2%	0.3%
DROPOUT, NO RETURN............	05	600	3.5%	5.2%
NOT APPLICABLE, F2 FRESHENED..	06	221	1.3%	1.1%
TOTALS:		17285	100.0%	100.0%

Question F2DOSTAT

Tape Pos. 225-225
Format: I1

F2DOSTAT F2 DROPOUT STATUS

Indicates enrollment status, either dropout or student, as of the second follow-up ONLY. Also permits identification of dropouts according to either the NELS:88 first follow-up definition of a dropout or the HS&B/NELS:88 second follow-up definition. For more information on selecting dropouts by different dropout definitions, see Appendix D of the Second Follow-Up: Dropout Component Data File User's Manual.

For some sample members, this item may appear to be inconsistent with F2RTROUT. See F2TRSTYP for both elucidation and resolution of inconsistencies between F2RTROUT (transcript-indicated outcome) and F2DOSTAT. (See Chapter 6 and Appendix G of the Second Follow-Up: Transcript Component Data File User's manual for a discussion of F2TRSTYP and discrepancies between F2DOSTAT and F2RTROUT.)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DID NOT DROP OUT..............	0	15098	87.3%	83.7%
STATUS NOT DETERMINED.........	1	87	0.5%	0.9%
DROPOUT, BUT RETURNED.........	2	67	0.4%	0.5%
ALTERNATIVE STUDENT...........	3	666	3.9%	4.5%
SCHOOL REPORTED DROPOUT.......	4	70	0.4%	0.6%
DROPOUT, NO RETURN............	5	1297	7.5%	9.6%
TOTALS:		17285	100.0%	100.0%

Question F2TRSTYP

Tape Pos. 226-227
Format: I2

F2TRSTYP DROPOUT STATUS DISCREPANCY INDICATOR

This variable elucidates and resolves discrepancies between F2DOSTAT and F2RTROUT. The majority of inconsistencies can be attributed to the disjunct data collection periods for the two items, and to differences between the NELS:88 and transcript schools' dropout definition. (See Chapter 6 and Appendix G of the Second Follow-Up: Transcript Component Data File User's Manual for a discussion of F2TRSTYP as it relates to discrepancies between F2DOSTAT and F2RTROUT.)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
F2RTROUT-stu F2DOSTAT-stu F2RWTST-stu F2QFLG-stu quex...............	01	13854	80.2%	72.1%
F2RTROUT-stu F2DOSTAT-stop F2RWTST-stu F2QFLG-stu quex...............	02	23	0.1%	0.1%
F2RTROUT-stu F2DOSTAT-stu F2RWTST-stu F2QFLG-no quex................	03	466	2.7%	5.9%
F2RTROUT-stu F2DOSTAT-stop F2RWTST-stu F2QFLG-no quex................	04	2	0.0%	0.0%
F2RTROUT-stu F2DOSTAT-unk F2RWTST-drop F2QFLG-no quex................	05	8	0.0%	0.1%
F2RTROUT-stu F2DOSTAT-drop F2RWTST-drop F2QFLG-stu quex...............	06	39	0.2%	0.3%
F2RTROUT-stu F2DOSTAT-drop F2RWTST-drop F2QFLG-drop quex..............	07	55	0.3%	0.4%
F2RTROUT-stu F2DOSTAT-drop F2RWTST-drop F2QFLG-no quex................	08	20	0.1%	0.2%
F2RTROUT-drop F2DOSTAT-drop F2RWTST-drop F2QFLG-stu quex...............	09	174	1.0%	1.3%
F2RTROUT-drop F2DOSTAT-drop F2RWTST-drop F2QFLG-drop quex..............	10	1279	7.4%	9.0%
F2RTROUT-drop F2DOSTAT-drop F2RWTST-drop F2QFLG-no quex................	11	171	1.0%	1.5%
F2RTROUT-drop F2DOSTAT-unk F2RWTST-drop F2QFLG-no quex................	12	52	0.3%	0.6%
F2RTROUT-drop F2DOSTAT-stu F2RWTST-stu F2QFLG-stu quex...............	13	246	1.4%	1.7%
F2RTROUT-drop F2DOSTAT-stop F2RWTST-stu F2QFLG-stu quex...............	14	25	0.1%	0.2%
F2RTROUT-drop F2DOSTAT-stu F2RWTST-stu F2QFLG-no quex................	15	33	0.2%	0.5%
F2RTROUT-drop F2DOSTAT-stop F2RWTST-stu F2QFLG-no quex................	16	3	0.0%	0.1%
F2RTROUT-trnsfr F2DOSTAT-stu F2RWTST-stu F2QFLG-stu quex...............	17	142	0.8%	1.0%
F2RTROUT-trnsfr F2DOSTAT-stop F2RWTST-stu F2QFLG-stu quex...............	18	6	0.0%	0.0%
F2RTROUT-trnsfr F2DOSTAT-stu F2RWTST-stu F2QFLG-no quex................	19	23	0.1%	0.4%
F2RTROUT-trnsfr F2DOSTAT-stop F2RWTST-stu F2QFLG-no quex................	20	1	0.0%	0.0%
F2RTROUT-trnsfr F2DOSTAT-unk F2RWTST-drop F2QFLG-no quex................	21	16	0.1%	0.1%
F2RTROUT-trnsfr F2DOSTAT-drop F2RWTST-drop F2QFLG-stu quex...............	22	47	0.3%	0.3%
F2RTROUT-trnsfr F2DOSTAT-drop F2RWTST-drop F2QFLG-drop quex..............	23	134	0.8%	0.9%
F2RTROUT-trnsfr F2DOSTAT-drop F2RWTST-drop F2QFLG-no quex................	24	30	0.2%	0.3%
F2RTROUT-unk F2DOSTAT-stu F2RWTST-stu F2QFLG-stu quex...............	25	308	1.8%	1.8%

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F2RTROUT-unk F2DOSTAT-stop F2RWTST-stu F2QFLG-stu ques..............	26	5	0.0%	0.1%
F2RTROUT-unk F2DOSTAT-stu F2RWTST-stu F2QFLG-no ques...............	27	26	0.2%	0.3%
F2RTROUT-unk F2DOSTAT-stop F2RWTST-stu F2QFLG-no ques...............	28	1	0.0%	0.0%
F2RTROUT-unk F2DOSTAT-unk F2RWTST-drop F2QFLG-no ques...............	29	11	0.1%	0.1%
F2RTROUT-unk F2DOSTAT-drop F2RWTST-drop F2QFLG-stu ques..............	30	17	0.1%	0.1%
F2RTROUT-unk F2DOSTAT-drop F2RWTST-drop F2QFLG-drop ques.............	31	51	0.3%	0.4%
F2RTROUT-unk F2DOSTAT-drop F2RWTST-drop F2QFLG-no ques...............	32	16	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: On the 7/94 release of the transcript data and in the public and restricted use versions of the second follow-student data, the labels for values 9 and 10 of F2TRSTYP were reversed and have been corrected in this display of the variable. Value 9 should read: F2RTROUT-drop, F2DOSTAT-drop, F2RWTST-drop, and F2QFLG-stu. Value 10 should read: F2RTROUT-drop, F2DOSTAT-drop, F2RWTST-drop, and F2QFLG-drop

Question F2SEX

Tape Pos. 228-228
Format: I1

F2SEX COMPOSITE SEX

The most complete indicator of sample member's gender, this variable is based on the first follow-up (F1SEX) composite and augmented by second follow-up New Student Supplement information or, if still missing, imputation from student first names.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
MALE..........................	1	8776	50.8%	51.0%
FEMALE........................	2	8509	49.2%	49.0%
TOTALS:		17285	100.0%	100.0%

Question F2RACE1

Tape Pos. 229-229
Format: I1

F2RACE1 COMPOSITE RACE

Indicates student's "best known" race, based on second follow-up New Student Supplement data (when available) or F1RACE composite.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
ASIAN, PACIFIC ISLANDER.......	1	1162	6.7%	3.9%
HISPANIC......................	2	2198	12.7%	11.4%
BLACK, NOT HISPANIC...........	3	1695	9.8%	13.6%
WHITE, NOT HISPANIC...........	4	11897	68.8%	69.5%
AMERICAN INDIAN, ALASKAN......	5	215	1.2%	1.5%
RESERVED CODES: MISSING....................	8	118	0.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BYSES

Tape Pos. 230-234
Format: R5.3

F2BYSES BY SOCIO-ECONOMIC STATUS COMPOSITE

This continuous variable estimates socioeconomic status. It was derived from the BY parent questionnaire data or the BY student questionnaire data.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
-2.97 TO 2.56.................	01.000	15245	88.2%	100.0%
RESERVED CODES: MISSING....................	99.998	2040	11.8%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite has been updated since it was initially released in the base year.

Question F2F1SES

Tape Pos. 235-239
Format: R5.3

F2F1SES F1 SOCIO-ECONOMIC STATUS COMPOSITE

This continuous variable estimates socioeconomic status. It was derived from the BY parent questionnaire data, the BY student questionnaire data, or the first follow-up New Student Supplement data.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
-3.29 TO 2.762................	01.000	15677	90.7%	100.0%
RESERVED CODES: MISSING....................	99.998	1608	9.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite has been updated since it was initially released in the first follow-up.

Question F2SES1

Tape Pos. 240-244
Format: R5.3

F2SES1 F2 SOCIO-ECONOMIC STATUS COMPOSITE

This continuous variable estimates socioeconomic status. It was derived from the BY parent questionnaire data, the BY student questionnaire data, or the first follow-up or second follow-up New Student Supplement data.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
-3.243 TO 2.753...............	01.000	16144	93.4%	100.0%
RESERVED CODES: MISSING....................	99.998	1141	6.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BYSESQ

Tape Pos. 245-245
Format: I1

F2BYSESQ BASE YEAR SOCIO-ECONOMIC QUARTILE

Indicates the quartile into which F2BYSES falls. It is constructed by recoding F2BYSES into quartiles based on the weighted (with BYQWT) marginal distribution.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW................	1	3453	20.0%	24.0%
QUARTILE 2....................	2	3632	21.0%	25.9%
QUARTILE 3....................	3	3617	20.9%	24.3%
QUARTILE 4 HIGH...............	4	4543	26.3%	25.8%
RESERVED CODES: MISSING....................	8	2040	11.8%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite has been updated since it was initially released in the base year.

Question F2F1SESQ

Tape Pos. 246-246
Format: I1

F2F1SESQ F1 SOCIO-ECONOMIC QUARTILE

Indicates the quartile into which F2F1SES falls. It is constructed by recoding F2F1SES into quartiles based on the weighted (with F1QWT) marginal distribution.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW................	1	3643	21.1%	24.8%
QUARTILE 2....................	2	3795	22.0%	25.7%
QUARTILE 3....................	3	3664	21.2%	24.6%
QUARTILE 4 HIGH...............	4	4575	26.5%	25.1%
RESERVED CODES: MISSING....................	8	1608	9.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite has been updated since it was initially released in the first follow-up.

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Question F2SES1Q

Tape Pos. 247-247
Format: I1

F2SES1Q F2 SOCIO-ECONOMIC QUARTILE

Indicates the quartile into which F2SES1 falls. It is constructed by recoding F2SES1 into quartiles based on the weighted (with F2QWT) marginal distribution.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW	1	3549	20.5%	23.5%
QUARTILE 2	2	3886	22.5%	25.9%
QUARTILE 3	3	3932	22.7%	25.0%
QUARTILE 4 HIGH	4	4777	27.6%	25.6%
RESERVED CODES:				
MISSING	8	1141	6.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BIRTHM

Tape Pos. 248-249
Format: I2

F2BIRTHM BIRTH MONTH OF SAMPLE MEMBER

This variable was taken from an updated version of F1BIRTHM which included birth data for base year ineligible students and other teen sample members for whom F1BIRTHM was previously missing. For first follow-up nonrespondents and students who were freshened in the second follow-up, the second follow-up New Student Supplement data were used.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
JANUARY	01	1215	7.0%	7.1%
FEBRUARY	02	1184	6.8%	7.3%
MARCH	03	1369	7.9%	8.1%
APRIL	04	1408	8.1%	8.4%
MAY	05	1383	8.0%	7.7%
JUNE	06	1377	8.0%	8.8%
JULY	07	1470	8.5%	9.8%
AUGUST	08	1479	8.6%	8.9%
SEPTEMBER	09	1389	8.0%	8.2%
OCTOBER	10	1402	8.1%	9.1%
NOVEMBER	11	1340	7.8%	8.3%
DECEMBER	12	1346	7.8%	8.2%
RESERVED CODES:				
MISSING	98	923	5.3%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BIRTHY

Tape Pos. 250-251
Format: I2

F2BIRTHY BIRTH YEAR OF SAMPLE MEMBER

This variable was taken from an updated version of F1BIRTHY which included birth data for base year ineligible students and other teen sample members for whom birth data were previously missing. For first follow-up nonrespondents and students who were freshened in the second follow-up, the second follow-up New Student Supplement data were used.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
1970	70	18	0.1%	0.2%
1971	71	112	0.6%	0.8%
1972	72	846	4.9%	5.7%
1973	73	4960	28.7%	32.4%
1974	74	10390	60.1%	59.7%
1975	75	148	0.9%	0.8%
1976	76	8	0.0%	0.3%
1978	78	2	0.0%	0.0%
1979	79	7	0.0%	0.0%
RESERVED CODES:				
MISSING	98	794	4.6%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2HSPROG

Tape Pos. 252-253
Format: I2

F2HSPROG RESPONDENT-INDICATED HIGH SCHOOL PROGRAM

High school program (current or last attended) as reported in the F2 student (F2S12A) or dropout (F2D20) questionnaire

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
GENERAL HIGH SCHOOL PROGRM	01	6184	35.8%	40.1%
ACADEMIC PROGRAM	02	6845	39.6%	37.7%
VOCATIONAL/TECHNICAL	03	1795	10.4%	11.9%
OTHER SPECIALIZED HS PROGRAM	04	300	1.7%	2.8%
SPECIAL EDUCATION PROGRAM	05	113	0.7%	0.9%
ALTERNATIVE/DROPOUT PREVENTION PROGRAM	06	174	1.0%	1.7%
DON'T KNOW	07	824	4.8%	5.0%
RESERVED CODES:				
MISSING	98	1050	6.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BY2XCO

Tape Pos. 254-257
Format: R4.2

F2BY2XCO BY STD TEST COMP (READING, MATH)

Base year standardized test composite (reading, math)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
30.71 TO 75.81	01.00	14678	84.9%	100.0%
RESERVED CODES:				
MISSING	99.98	4	0.0%	(MISS)
DID NOT COMPLETE TEST	99.99	2603	15.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2F12XCO

Tape Pos. 258-261
Format: R4.2

F2F12XCO F1 STD TEST COMP (READING, MATH)

First follow-up standardized test composite (reading, math)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
30.27 TO 71.82	01.00	15210	88.0%	100.0%
RESERVED CODES:				
MISSING	99.98	3	0.0%	(MISS)
DID NOT COMPLETE TEST	99.99	2072	12.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F22XCOMP

Tape Pos. 262-265
Format: R4.2

F22XCOMP F2 STD TEST COMP (READING, MATH)

Second follow-up standardized test composite (reading, math)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
27.86 TO 71.37	01.00	13009	75.3%	100.0%
RESERVED CODES:				
MISSING	99.98	13	0.1%	(MISS)
DID NOT COMPLETE TEST	99.99	4263	24.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2BY2XQU

Tape Pos. 266-266
Format: I1

F2BY2XQU BY STD TEST QUARTILE (1=LOW)

Base year standardized test quartile (1=low)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW	1	2988	17.3%	24.1%
QUARTILE 2	2	3451	20.0%	24.7%
QUARTILE 3	3	3710	21.5%	25.1%
QUARTILE 4 HIGH	4	4529	26.2%	26.1%
RESERVED CODES:				
MISSING	8	4	0.0%	(MISS)
DID NOT COMPLETE TEST	9	2603	15.1%	(MISS)
TOTALS:		17285	100.0%	100.0%

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Question F2F12XQU

Tape Pos. 267-267
Format: I1

F2F12XQU F1 STD TEST QUARTILE (1=LOW)

First follow-up standardized test quartile (1=low)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW	1	3382	19.6%	24.7%
QUARTILE 2	2	3632	21.0%	25.6%
QUARTILE 3	3	3810	22.0%	24.2%
QUARTILE 4 HIGH	4	4386	25.4%	25.5%
RESERVED CODES:				
MISSING	8	3	0.0%	(MISS)
DID NOT COMPLETE TEST	9	2072	12.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F22XQURT

Tape Pos. 268-268
Format: I1

F22XQURT F2 STD TEST QUARTILE (1=LOW)

Second follow-up standardized test quartile (1=low)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
QUARTILE 1 LOW	1	2707	15.7%	23.7%
QUARTILE 2	2	3118	18.0%	25.0%
QUARTILE 3	3	3367	19.5%	25.9%
QUARTILE 4 HIGH	4	3817	22.1%	25.3%
RESERVED CODES:				
MISSING	8	13	0.1%	(MISS)
DID NOT COMPLETE TEST	9	4263	24.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question G8CTRL2

Tape Pos. 269-269
Format: I1

G8CTRL2 BASE YEAR SCHOOL CLASSIFICATION

Classifies the student's base year school type into public, Catholic, private NAIS, and other private-not NAIS, as obtained from Quality Education Data (QED).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
PUBLIC SCHOOL	1	13607	78.7%	88.3%
CATHOLIC SCHOOL	2	1229	7.1%	7.3%
NAIS PRIVATE SCHOOL	3	1090	6.3%	1.0%
OTHER PRIVATE SCHOOL	4	411	2.4%	3.4%
RESERVED CODES:				
MISSING	8	948	5.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question G10CTRL2

Tape Pos. 270-271
Format: I2

G10CTRL2 F1 SCHOOL CLASSIFICATION

Classifies the student's first follow-up school type into public, Catholic, private NAIS, and other private-not NAIS, as obtained from Quality Education Data (QED).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
PUBLIC SCHOOL	01	14538	84.1%	91.4%
CATHOLIC SCHOOL	02	842	4.9%	5.1%
NAIS PRIVATE SCHOOL	03	1027	5.9%	1.3%
OTHER PRIVATE SCHOOL	04	289	1.7%	2.2%
NON-TRADITIONAL	05	1	0.0%	0.0%
RESERVED CODES:				
MISSING	98	588	3.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This variable is copied from the F1 reconstructed student datafile. The characteristic described applies to the F1 school in which the student was enrolled at that time. Or, if the sample member completed a dropout questionnaire in F1 and characteristics of the last school attended in that instrument are available either in the NELS:88 school files or in the QED sample files, then these characteristics appear in this variable.

Question TRNCTRL2

Tape Pos. 272-273
Format: I2

TRNCTRL2 SCHOOL CLASSIFICATION

Classifies the student's last attended school type into public, Catholic, private NAIS, and other private-not NAIS, as obtained from Quality Education Data (QED).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
PUBLIC SCHOOL	01	15150	87.6%	92.5%
CATHOLIC SCHOOL	02	817	4.7%	4.3%
NAIS PRIVATE SCHOOL	03	1034	6.0%	1.3%
OTHER PRIVATE SCHOOL	04	283	1.6%	1.9%
RESERVED CODES:				
MISSING	98	1	0.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: "Last attended school" refers to the last school attended by the sample member as determined from transcript data.

Question G8URBN3

Tape Pos. 274-274
Format: I1

G8URBN3 TYPE OF SCHL DISTRICT, DIOCESE, COUNTY

Trichotomizes the urbanicity of the area in which the sample member's base year school is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
URBAN	1	4130	23.9%	26.1%
SUBURBAN	2	6982	40.4%	43.5%
RURAL/OUTSDE MSA	3	5225	30.2%	30.4%
RESERVED CODES:				
MISSING	8	948	5.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question G10URBN3

Tape Pos. 275-275
Format: I1

G10URBN3 TYPE OF SCHL DISTRICT, DIOCESE, COUNTY

Trichotomizes the urbanicity of the area in which the sample member's first follow-up school is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
URBAN	1	4753	27.5%	28.9%
SUBURBAN	2	6604	38.2%	40.2%
RURAL/OUTSDE MSA	3	5371	31.1%	30.9%
NOT ENROLLED IN TRADITIONAL SCHOOL	4	1	0.0%	0.0%
RESERVED CODES:				
MISSING	8	556	3.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This variable is copied from the F1 reconstructed student datafile. The characteristic described applies to the F1 school in which the student was enrolled at that time. Or, if the sample member completed a dropout questionnaire in F1 and characteristics of the last school attended in that instrument are available either in the NELS:88 school files or in the QED sample files, then these characteristics appear in this variable.

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Question TRNURBN3

Tape Pos. 276-276
Format: I1

TRNURBN3 TYPE OF SCHL DISTRICT, DIOCESE, COUNTY

Trichotomizes the urbanicity of the area in which the sample member's last attended school is located. This metropolitan status is defined by QED for public school districts, for Catholic dioceses, or in some cases for the county in which the school is located. QED bases the classifications on the Federal Information Processing Standards as used by the U.S. Census.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
URBAN	1	4933	28.5%	28.5%
SUBURBAN	2	6833	39.5%	40.6%
RURAL/OUTSDE MSA	3	5518	31.9%	30.9%
RESERVED CODES:				
MISSING	8	1	0.0%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: "Last attended school" refers to the last school attended by the sample member as determined from transcript data.

Question G8REGON

Tape Pos. 277-278
Format: I2

G8REGON REGION OF THE COUNTRY (4 CENSUS REGIONS)

Indicates in which of the four US Census regions the student's base year school is located, based on the school state.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NORTHEAST	01	2988	17.3%	19.5%
MIDWEST	02	4430	25.6%	25.6%
SOUTH	03	5570	32.2%	35.0%
WEST	04	3349	19.4%	19.9%
RESERVED CODES:				
MISSING	98	948	5.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question G10REGON

Tape Pos. 279-280
Format: I2

G10REGON REGION OF THE COUNTRY (4 CENSUS REGIONS)

Indicates in which of the four US Census regions the student's first follow-up school is located, based on the school state.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NORTHEAST	01	3020	17.5%	19.0%
MIDWEST	02	4475	25.9%	25.0%
SOUTH	03	5865	33.9%	36.7%
WEST	04	3378	19.5%	19.3%
NOT ENROLLED IN TRADITIONAL SCHOOL	05	1	0.0%	0.0%
RESERVED CODES:				
MISSING	98	546	3.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This variable is copied from the F1 reconstructed student datafile. The characteristic described applies to the F1 school in which the student was enrolled at that time. Or, if the sample member completed a dropout questionnaire in F1 and characteristics of the last school attended in that instrument are available either in the NELS:88 school files or in the QED sample files, then these characteristics appear in this variable.

Question TRNREGON

Tape Pos. 281-282
Format: I2

TRNREGON REGION OF THE COUNTRY (4 CENSUS REGIONS)

Indicates in which of the four US Census regions the student's last attended school is located, based on the school state.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NORTHEAST	01	3105	18.0%	18.9%
MIDWEST	02	4605	26.6%	24.6%
SOUTH	03	6035	34.9%	36.4%
WEST	04	3540	20.5%	20.0%
TOTALS:		17285	100.0%	100.0%

NOTE: "Last attended school" refers to the last school attended by the sample member as determined from transcript data.

Question TRNSTATE

Tape Pos. 283-284
Format: A2

TRNSTATE LOCATION OF STUDENT'S SCHOOL (STATE)

Indicates the student's last attended school state. The values for this variable are the standard two-column Post Office state abbreviations (additional values are listed below).

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
ALASKA	AK	73	0.4%	0.3%
ALABAMA	AL	294	1.7%	2.0%
ARKANSAS	AR	136	0.8%	0.8%
ARIZONA	AZ	213	1.2%	1.9%
CALIFORNIA	CA	1824	10.6%	9.6%
COLORADO	CO	155	0.9%	0.7%
CONNECTICUT	CT	149	0.9%	1.3%
DISTRICT OF COLUMBIA	DC	5	0.0%	0.5%
DELAWARE	DE	31	0.2%	0.2%
FLORIDA	FL	720	4.2%	4.2%
GEORGIA	GA	318	1.8%	2.5%
HAWAII	HI	83	0.5%	0.4%
IOWA	IA	199	1.2%	0.9%
IDAHO	ID	102	0.6%	0.8%
ILLINOIS	IL	728	4.2%	4.2%
INDIANA	IN	326	1.9%	1.5%
KANSAS	KS	206	1.2%	1.1%
KENTUCKY	KY	304	1.8%	1.7%
LOUISIANA	LA	338	2.0%	1.6%
MASSACHUSETTS	MA	404	2.3%	2.1%
MARYLAND	MD	209	1.2%	1.6%
MAINE	ME	75	0.4%	0.5%
MICHIGAN	MI	691	4.0%	4.1%
MINNESOTA	MN	250	1.4%	1.2%
MISSOURI	MO	522	3.0%	2.9%
MISSISSIPPI	MS	185	1.1%	0.9%
MONTANA	MT	51	0.3%	0.4%
NORTH CAROLINA	NC	440	2.5%	2.7%
NORTH DAKOTA	ND	112	0.6%	0.6%
NEBRASKA	NE	127	0.7%	0.8%
NEW HAMPSHIRE	NH	58	0.3%	0.3%
NEW JERSEY	NJ	413	2.4%	2.7%
NEW MEXICO	NM	222	1.3%	1.0%
NEVADA	NV	102	0.6%	0.8%
NEW YORK	NY	1093	6.3%	5.4%
OHIO	OH	802	4.6%	4.4%
OKLAHOMA	OK	263	1.5%	1.8%
OREGON	OR	166	1.0%	0.9%
PENNSYLVANIA	PA	819	4.7%	5.8%
RHODE ISLAND	RI	53	0.3%	0.6%
SOUTH CAROLINA	SC	423	2.4%	3.1%
SOUTH DAKOTA	SD	17	0.1%	0.1%
TENNESSEE	TN	419	2.4%	2.4%
TEXAS	TX	1424	8.2%	7.7%
UTAH	UT	151	0.9%	0.7%
VIRGINIA	VA	450	2.6%	2.5%
VERMONT	VT	41	0.2%	0.2%
WASHINGTON	WA	331	1.9%	2.0%
WISCONSIN	WI	625	3.6%	2.8%
WEST VIRGINIA	WV	76	0.4%	0.5%
WYOMING	WY	67	0.4%	0.3%
TOTALS:		17285	100.0%	100.0%

NOTE: "Last attended school" refers to the last school attended by the sample member as determined from transcript data.

Question F2RCRLST

Tape Pos. 285-285
Format: I1

F2RCRLST TYPE OF COURSE LIST

Indicates the type of course list submitted by school. The course list was used to identify course titles listed on a sample member's transcript.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
COURSE CATALOG	1	13679	79.1%	76.5%
STUDENT HANDBOOK	2	281	1.6%	1.6%
OTHER COURSE LST	3	1469	8.5%	8.4%
NO LST SUBMITTED	4	1856	10.7%	13.4%
TOTALS:		17285	100.0%	100.0%

Question F2RTRO9

Tape Pos. 286-286
Format: I1

F2RTRO9 G9 TRANSCRIPT DATA AVAILABILITY

Ninth grade transcript data available

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA NOT AVAILABLE	0	402	2.3%	2.9%
DATA AVAILABLE	1	16883	97.7%	97.1%
TOTALS:		17285	100.0%	100.0%

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Question F2RTR10 — Tape Pos. 287-287
Format: I1

F2RTR10 G10 TRANSCRIPT DATA AVAILABILITY

Tenth grade transcript data available

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA NOT AVAILABLE............	0	819	4.7%	6.5%
DATA AVAILABLE................	1	16466	95.3%	93.5%
TOTALS:		17285	100.0%	100.0%

Question F2RTR11 — Tape Pos. 288-288
Format: I1

F2RTR11 G11 TRANSCRIPT DATA AVAILABILITY

Eleventh grade transcript data available

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA NOT AVAILABLE............	0	1789	10.4%	13.4%
DATA AVAILABLE................	1	15496	89.6%	86.6%
TOTALS:		17285	100.0%	100.0%

Question F2RTR12 — Tape Pos. 289-289
Format: I1

F2RTR12 G12 TRANSCRIPT DATA AVAILABILITY

Twelfth grade transcript data available

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA NOT AVAILABLE............	0	2496	14.4%	18.9%
DATA AVAILABLE................	1	14789	85.6%	81.1%
TOTALS:		17285	100.0%	100.0%

Question F2RTROUT — Tape Pos. 290-291
Format: I2

F2RTROUT TRANSCRIPT-INDICATED OUTCOME

Indicates the sample member's transcript-indicated outcome.

For some sample members, this item (and F2RREASL, from which it is derived) may appear to be inconsistent with F2DOSTAT. The majority of inconsistencies can be attributed to the disjunct data collection periods for the two items, and to differences between the NELS:88 and transcript schools' dropout definition. See F2TRSTYP for both elucidation and resolution of inconsistencies between F2RTROUT (transcript-indicated outcome) and F2DOSTAT. (Also, see Chapter 6 and Appendix C of the Second Follow-Up: Transcript Component Data File User's Manual for a discussion of F2TRSTYP as it relates to discrepancies between F2DOSTAT and F2RTROUT.)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
SPRING 1992 GRADUATE..........	01	13471	77.9%	72.1%
OTHER 1992 GRADUATE...........	02	272	1.6%	1.7%
PRE-1992 GRADUATE.............	03	154	0.9%	1.1%
DIPLOMA WITH SPECIAL EDUCATION ADJUSTMENTS.........	04	22	0.1%	0.2%
CERTIFICATE OF ATTENDANCE.....	05	9	0.1%	0.1%
STILL ENROLLED IN SCHOOL......	06	420	2.4%	3.0%
DROPPED OUT...................	07	2003	11.6%	15.3%
TRANSFERRED...................	08	424	2.5%	3.2%
AGED OUT......................	09	25	0.1%	0.1%
DIED..........................	10	4	0.0%	0.0%
LEFT FOR HEALTH REASON........	11	10	0.1%	0.1%
RECEIVED GED..................	12	35	0.2%	0.2%
OTHER.........................	13	87	0.5%	0.6%
STATUS UNDETERMINED...........	14	349	2.0%	2.3%
TOTALS:		17285	100.0%	100.0%

Question F2RTRPRG — Tape Pos. 292-293
Format: I2

F2RTRPRG TRANSCRIPT-INDICATED HIGH SCHOOL PROGRAM

High school program, as determined from high school credits earned

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
RIGOROUS ACADEMIC TRACK.......	01	2980	17.2%	15.4%
ACADEMIC TRACK................	02	7831	45.3%	41.8%
VOCATIONAL TRACK..............	03	982	5.7%	5.9%
VOCATIONAL AND RIGOROUS ACADEMIC......................	04	118	0.7%	0.8%
ACADEMIC AND VOCATIONAL.......	05	1056	6.1%	5.7%
NONE OF THE ABOVE.............	06	4318	25.0%	30.4%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB1A — Tape Pos. 294-294
Format: I1

F2RNWB1A NEW BASICS: 4E+3SS+3S+3M+.5CS+2FL (HS+B)

New basics program of 4E+3SS+3S+3M+.5CS+2FL (HS&B-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD..............	0	14708	85.1%	87.0%
MET THRESHOLD.................	1	2577	14.9%	13.0%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB2A — Tape Pos. 295-295
Format: I1

F2RNWB2A NEW BASICS: 4E+3SS+3S+3M+.5CS (HS+B)

New basics program of 4E+3SS+3S+3M+.5CS (HS&B-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD..............	0	14021	81.1%	83.2%
MET THRESHOLD.................	1	3264	18.9%	16.8%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB3A — Tape Pos. 296-296
Format: I1

F2RNWB3A NEW BASICS: 4E+3SS+3S+3M+2FL (HS+B)

New basics program of 4E+3SS+3S+3M+2FL (HS&B-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD..............	0	12394	71.7%	75.3%
MET THRESHOLD.................	1	4891	28.3%	24.7%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB4A — Tape Pos. 297-297
Format: I1

F2RNWB4A NEW BASICS: 4E+3SS+3S+3M (HS+B)

New basics program of 4E+3SS+3S+3M (HS&B-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD..............	0	11236	65.0%	68.5%
MET THRESHOLD.................	1	6049	35.0%	31.5%
TOTALS:		17285	100.0%	100.0%

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Question F2RNWB5A

Tape Pos. 298-298
Format: I1

F2RNWB5A NEW BASICS: 4E+3SS+2S+2M (HS+B)

New basics program of 4E+3SS+2S+2M (HS&B-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	8070	46.7%	49.5%
MET THRESHOLD	1	9215	53.3%	50.5%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB1B

Tape Pos. 299-299
Format: I1

F2RNWB1B NEW BASICS: 4E+3SS+3S+3M+.5CS+2FL (NAEP)

New basics program of 4E+3SS+3S+3M+.5CS+2FL (NAEP-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	14187	82.1%	83.9%
MET THRESHOLD	1	3098	17.9%	16.1%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB2B

Tape Pos. 300-300
Format: I1

F2RNWB2B NEW BASICS: 4E+3SS+3S+3M+.5CS (NAEP)

New basics program of 4E+3SS+3S+3M+.5CS (NAEP-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	13355	77.3%	79.3%
MET THRESHOLD	1	3930	22.7%	20.7%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB3B

Tape Pos. 301-301
Format: I1

F2RNWB3B NEW BASICS: 4E+3SS+3S+3M+2FL (NAEP)

New basics program of 4E+3SS+3S+3M+2FL (NAEP-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	12204	70.6%	74.1%
MET THRESHOLD	1	5081	29.4%	25.9%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB4B

Tape Pos. 302-302
Format: I1

F2RNWB4B NEW BASICS: 4E+3SS+3S+3M (NAEP)

New basics program of 4E+3SS+3S+3M (NAEP-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	10926	63.2%	66.7%
MET THRESHOLD	1	6359	36.8%	33.3%
TOTALS:		17285	100.0%	100.0%

Question F2RNWB5B

Tape Pos. 303-303
Format: I1

F2RNWB5B NEW BASICS: 4E+3SS+2S+2M (NAEP)

New basics program of 4E+3SS+2S+2M (NAEP-equivalent)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
FAILED THRESHOLD	0	7474	43.2%	46.3%
MET THRESHOLD	1	9811	56.8%	53.7%
TOTALS:		17285	100.0%	100.0%

Question F2RHEN_C

Tape Pos. 304-307
Format: R4.2

F2RHEN_C UNITS IN ENGLISH (HS+B)

Total Carnegie units in English (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	723	4.2%	5.7%
00.01 TO 00.49	02.00	11	0.1%	0.1%
00.50 TO 00.99	03.00	289	1.7%	1.9%
01.00 TO 01.99	04.00	961	5.6%	6.9%
02.00 TO 02.99	05.00	1137	6.6%	8.0%
03.00 TO 03.99	06.00	2855	16.5%	15.4%
04.00 TO 04.99	07.00	9166	53.0%	50.0%
05.00 TO 13.00	08.00	2143	12.4%	12.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHMA_C

Tape Pos. 308-311
Format: R4.2

F2RHMA_C UNITS IN MATHEMATICS (HS+B)

Total Carnegie units in mathematics (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	875	5.1%	6.8%
00.01 TO 00.49	02.00	9	0.1%	0.1%
00.50 TO 00.99	03.00	388	2.2%	3.5%
01.00 TO 01.99	04.00	1673	9.7%	11.3%
02.00 TO 02.99	05.00	3492	20.2%	21.4%
03.00 TO 03.99	06.00	5260	30.4%	30.1%
04.00 TO 04.99	07.00	4815	27.9%	22.8%
05.00 TO 08.33	08.00	783	4.5%	4.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHSC_C

Tape Pos. 312-315
Format: R4.2

F2RHSC_C UNITS IN SCIENCE (HS+B)

Total Carnegie units in science (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	718	4.2%	5.7%
00.01 TO 00.49	02.00	12	0.1%	0.1%
00.50 TO 00.99	03.00	355	2.1%	3.2%
01.00 TO 01.99	04.00	1901	11.0%	12.5%
02.00 TO 02.99	05.00	5544	32.1%	33.7%
03.00 TO 03.99	06.00	4996	28.9%	26.9%
04.00 TO 04.99	07.00	2975	17.2%	14.2%
05.00 TO 11.00	08.00	784	4.5%	3.6%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHSO_C

Tape Pos. 316-319
Format: R4.2

F2RHSO_C UNITS IN SOCIAL STUDIES (HS+B)

Total Carnegie units in social studies (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	695	4.0%	5.8%
00.01 TO 00.49	02.00	10	0.1%	0.1%
00.50 TO 00.99	03.00	334	1.9%	2.8%
01.00 TO 01.99	04.00	1156	6.7%	8.1%
02.00 TO 02.99	05.00	2691	15.6%	15.6%
03.00 TO 03.99	06.00	7436	43.0%	40.4%
04.00 TO 04.99	07.00	3969	23.0%	21.8%
05.00 TO 11.00	08.00	995	5.8%	5.5%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question F2RHCO_C

Tape Pos. 320-323
Format: R4.2

F2RHCO_C UNITS IN COMPUTER SCIENCE (HS+B)

Total Carnegie units in computer science/programming/data processing (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	9722	56.2%	58.0%
00.01 TO 00.49	02.00	255	1.5%	1.6%
00.50 TO 00.99	03.00	3914	22.6%	21.5%
01.00 TO 01.99	04.00	2889	16.7%	16.3%
02.00 TO 02.99	05.00	416	2.4%	2.0%
03.00 TO 03.99	06.00	53	0.3%	0.3%
04.00 TO 04.99	07.00	19	0.1%	0.1%
05.00 TO 09.00	08.00	17	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHFO_C

Tape Pos. 324-327
Format: R4.2

F2RHFO_C UNITS IN FOREIGN LANGUAGES (HS+B)

Total Carnegie units in foreign languages (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	5468	31.6%	37.8%
00.01 TO 00.49	02.00	16	0.1%	0.1%
00.50 TO 00.99	03.00	523	3.0%	3.2%
01.00 TO 01.99	04.00	2547	14.7%	15.2%
02.00 TO 02.99	05.00	4534	26.2%	24.2%
03.00 TO 03.99	06.00	2385	13.8%	11.8%
04.00 TO 04.99	07.00	1362	7.9%	6.1%
05.00 TO 15.50	08.00	450	2.6%	1.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHENG2

Tape Pos. 328-331
Format: R4.2

F2RHENG2 AVERAGE GRADE IN ENGLISH (HS+B)

Average grade in English (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	1954	11.3%	9.2%
B = 03.51 TO 06.50	02.00	5813	33.6%	30.9%
C = 06.51 TO 09.50	03.00	5725	33.1%	35.5%
D = 09.51 TO 12.00	04.00	2751	15.9%	19.3%
F = 12.01 TO 13.00	05.00	658	3.8%	5.1%
RESERVED CODES:				
NO CREDIT/GRADES IN SUBJECT	99.98	384	2.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHMAG2

Tape Pos. 332-335
Format: R4.2

F2RHMAG2 AVERAGE GRADE IN MATHEMATICS (HS+B)

Average grade in mathematics (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	1590	9.2%	7.7%
B = 03.51 TO 06.50	02.00	4642	26.9%	23.9%
C = 06.51 TO 09.50	03.00	6197	35.9%	38.9%
D = 09.51 TO 12.00	04.00	3678	21.3%	23.7%
F = 12.01 TO 13.00	05.00	703	4.1%	5.8%
RESERVED CODES:				
NO CREDIT/GRADES IN SUBJECT	99.98	475	2.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHSCG2

Tape Pos. 336-339
Format: R4.2

F2RHSCG2 AVERAGE GRADE IN SCIENCE (HS+B)

Average grade in science (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	1749	10.1%	8.4%
B = 03.51 TO 06.50	02.00	5140	29.7%	27.1%
C = 06.51 TO 09.50	03.00	6089	35.2%	36.8%
D = 09.51 TO 12.00	04.00	3265	18.9%	21.5%
F = 12.01 TO 13.00	05.00	752	4.4%	6.2%
RESERVED CODES:				
NO CREDIT/GRADES IN SUBJECT	99.98	290	1.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHSOG2

Tape Pos. 340-343
Format: R4.2

F2RHSOG2 AVERAGE GRADE IN SOCIAL STUDIES (HS+B)

Average grade in social studies (HS+B)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	2468	14.3%	11.8%
B = 03.51 TO 06.50	02.00	5523	32.0%	30.3%
C = 06.51 TO 09.50	03.00	5422	31.4%	33.4%
D = 09.51 TO 12.00	04.00	2824	16.3%	18.2%
F = 12.01 TO 13.00	05.00	791	4.6%	6.3%
RESERVED CODES:				
NO CREDIT/GRADES IN SUBJECT	99.98	257	1.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question F2RHCOG2

Tape Pos. 344-347
Format: R4.2

F2RHCOG2 AVERAGE GRADE IN COMP. SCIENCE (HS+8)

Average grade in computer science/programming/data processing (HS+8)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	2472	14.3%	28.6%
B = 03.51 TO 06.50	02.00	2490	14.4%	31.3%
C = 06.51 TO 09.50	03.00	1700	9.8%	24.2%
D = 09.51 TO 12.00	04.00	780	4.5%	11.2%
F = 12.01 TO 13.00	05.00	304	1.8%	4.7%
RESERVED CODES: NO CREDIT/GRADES IN SUBJECT	99.98	9539	55.2%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHFOG2

Tape Pos. 348-351
Format: R4.2

F2RHFOG2 AVERAGE GRADE IN FOREIGN LANG. (HS+8)

Average grade in foreign languages (HS+8)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A = 01.00 TO 03.50	01.00	2668	15.4%	19.3%
B = 03.51 TO 06.50	02.00	4051	23.4%	30.3%
C = 06.51 TO 09.50	03.00	3357	19.4%	28.8%
D = 09.51 TO 12.00	04.00	1613	9.3%	14.9%
F = 12.01 TO 13.00	05.00	641	3.7%	6.8%
RESERVED CODES: NO CREDIT/GRADES IN SUBJECT	99.98	4955	28.7%	(MISS)
TOTALS:		17285	100.0%	100.0%

NOTE: This composite is an average in which '01.00' represents the highest grade (comparable to 'A+') and '12.01 - 13.00' represents the lowest grade (comparable to 'F').

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RENG_C

Tape Pos. 352-355
Format: R4.2

F2RENG_C UNITS IN ENGLISH (NAEP)

Total Carnegie units in English (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	469	2.7%	4.1%
00.01 TO 00.49	02.00	8	0.0%	0.0%
00.50 TO 00.99	03.00	243	1.4%	1.7%
01.00 TO 01.99	04.00	862	5.0%	6.2%
02.00 TO 02.99	05.00	1042	6.0%	7.3%
03.00 TO 03.99	06.00	2863	16.6%	15.5%
04.00 TO 04.99	07.00	9584	55.4%	52.6%
05.00 TO 13.00	08.00	2214	12.8%	12.5%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RFOR_C

Tape Pos. 356-359
Format: R4.2

F2RFOR_C UNITS IN FOREIGN LANGUAGES (NAEP)

Total Carnegie units in foreign languages (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	5460	31.6%	37.7%
00.01 TO 00.49	02.00	16	0.1%	0.1%
00.50 TO 00.99	03.00	528	3.1%	3.3%
01.00 TO 01.99	04.00	2549	14.7%	15.2%
02.00 TO 02.99	05.00	4533	26.2%	24.2%
03.00 TO 03.99	06.00	2386	13.8%	11.8%
04.00 TO 04.99	07.00	1362	7.9%	6.1%
05.00 TO 15.50	08.00	451	2.6%	1.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RMAT_C

Tape Pos. 360-363
Format: R4.2

F2RMAT_C UNITS IN MATHEMATICS (NAEP)

Total Carnegie units in mathematics (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	574	3.3%	4.6%
00.01 TO 00.49	02.00	5	0.0%	0.0%
00.50 TO 00.99	03.00	344	2.0%	2.7%
01.00 TO 01.99	04.00	1550	9.0%	10.7%
02.00 TO 02.99	05.00	3672	21.2%	23.7%
03.00 TO 03.99	06.00	5525	32.0%	31.2%
04.00 TO 04.99	07.00	4878	28.2%	23.2%
05.00 TO 08.33	08.00	737	4.3%	3.9%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RAL1_C

Tape Pos. 364-367
Format: R4.2

F2RAL1_C UNITS IN ALGEBRA I (NAEP)

Total Carnegie units in algebra I (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	4535	26.2%	28.1%
00.01 TO 00.49	02.00	30	0.2%	0.2%
00.50 TO 00.99	03.00	783	4.5%	4.7%
01.00 TO 01.99	04.00	9300	53.8%	51.2%
02.00 TO 02.99	05.00	2529	14.6%	15.2%
03.00 TO 03.50	06.00	108	0.6%	0.6%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RAL2_C

Tape Pos. 368-371
Format: R4.2

F2RAL2_C UNITS IN ALGEBRA II (NAEP)

Total Carnegie units in algebra II (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	9332	54.0%	58.4%
00.01 TO 00.49	02.00	15	0.1%	0.1%
00.50 TO 00.99	03.00	653	3.8%	4.0%
01.00 TO 01.99	04.00	6802	39.4%	35.1%
02.00 TO 02.99	05.00	472	2.7%	2.3%
03.00	06.00	11	0.1%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question   F2RGEO_C                          Tape Pos. 372-375
--------------------                         Format: R4.2

F2RGEO_C   UNITS IN GEOMETRY (NAEP)

Total Carnegie units in geometry (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00      6363    36.8%   43.1%
00.01 TO 00.49.................        02.00        13     0.1%    0.1%
00.50 TO 00.99.................        03.00       698     4.0%    3.7%
01.00 TO 01.99.................        04.00      9965    57.7%   51.9%
02.00 TO 02.99.................        05.00       237     1.4%    1.2%
03.00 TO 03.99.................        06.00         7     0.0%    0.0%
04.00..........................        07.00         2     0.0%    0.0%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question   F2RTRI_C                          Tape Pos. 376-379
--------------------                         Format: R4.2

F2RTRI_C   UNITS IN TRIGONOMETRY (NAEP)

Total Carnegie units in trigonometry (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00     14089    81.5%   84.5%
00.01 TO 00.49.................        02.00        20     0.1%    0.1%
00.50 TO 00.99.................        03.00      1423     8.2%    6.3%
01.00 TO 01.99.................        04.00      1726    10.0%    9.0%
02.00..........................        05.00        27     0.2%    0.1%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question   F2RPRE_C                          Tape Pos. 380-383
--------------------                         Format: R4.2

F2RPRE_C   UNITS IN PRE-CALCULUS (NAEP)

Total Carnegie units in pre-calculus (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00     14431    83.5%   87.8%
00.01 TO 00.49.................        02.00        27     0.2%    0.1%
00.50 TO 00.99.................        03.00       645     3.7%    2.6%
01.00 TO 01.99.................        04.00      2151    12.4%    9.4%
02.00 TO 02.99.................        05.00        29     0.2%    0.1%
03.00 TO 03.06.................        06.00         2     0.0%    0.0%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question   F2RCAL_C                          Tape Pos. 384-387
--------------------                         Format: R4.2

F2RCAL_C   UNITS IN CALCULUS (NAEP)

Total Carnegie units in calculus (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00     15361    88.9%   92.1%
00.01 TO 00.49.................        02.00         1     0.0%    0.0%
00.50 TO 00.99.................        03.00       211     1.2%    0.8%
01.00 TO 01.99.................        04.00      1635     9.5%    6.9%
02.00 TO 02.99.................        05.00        75     0.4%    0.2%
03.00 TO 03.99.................        06.00         1     0.0%    0.0%
04.00..........................        07.00         1     0.0%    0.0%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question   F2ROMA_C                          Tape Pos. 388-391
--------------------                         Format: R4.2

F2ROMA_C   UNITS IN OTHER MATH COURSES (NAEP)

Total Carnegie units in other mathematics courses (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00     10706    61.9%   58.9%
00.01 TO 00.49.................        02.00        68     0.4%    0.3%
00.50 TO 00.99.................        03.00      1086     6.3%    6.4%
01.00 TO 01.99.................        04.00      3663    21.2%   22.4%
02.00 TO 02.99.................        05.00      1338     7.7%    9.2%
03.00 TO 03.99.................        06.00       360     2.1%    2.2%
04.00 TO 04.99.................        07.00        54     0.3%    0.4%
05.00 TO 07.33.................        08.00        10     0.1%    0.1%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question   F2RSCI_C                          Tape Pos. 392-395
--------------------                         Format: R4.2

F2RSCI_C   UNITS IN SCIENCE (NAEP)

Total Carnegie units in science (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00       692     4.0%    5.6%
00.01 TO 00.49.................        02.00        14     0.1%    0.2%
00.50 TO 00.99.................        03.00       344     2.0%    3.1%
01.00 TO 01.99.................        04.00      1795    10.4%   11.9%
02.00 TO 02.99.................        05.00      5387    31.2%   32.8%
03.00 TO 03.99.................        06.00      5134    29.7%   27.7%
04.00 TO 04.99.................        07.00      3078    17.8%   14.7%
05.00 TO 11.00.................        08.00       841     4.9%    4.0%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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--------------------
Question   F2REAR_C                          Tape Pos. 396-399
--------------------                         Format: R4.2

F2REAR_C   UNITS IN EARTH SCIENCE (NAEP)

Total Carnegie units in earth science (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00     13641    78.9%   79.6%
00.01 TO 00.49.................        02.00        31     0.2%    0.3%
00.50 TO 00.99.................        03.00       664     3.8%    3.8%
01.00 TO 01.99.................        04.00      2856    16.5%   15.7%
02.00 TO 02.50.................        05.00        93     0.5%    0.6%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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--------------------
Question   F2RBIO_C                          Tape Pos. 400-403
--------------------                         Format: R4.2

F2RBIO_C   UNITS IN BIOLOGY (NAEP)

Total Carnegie units in biology (NAEP)

                                                           PER-    WGTD
     RESPONSE                          CODES      FREQ     CENT    PCT
    -----------                      ---------   -----    -----   -----
00.00..........................        01.00      2234    12.9%   15.6%
00.01 TO 00.49.................        02.00        22     0.1%    0.3%
00.50 TO 00.99.................        03.00       803     4.6%    5.3%
01.00 TO 01.99.................        04.00     11184    64.7%   63.0%
02.00 TO 02.99.................        05.00      2811    16.3%   14.6%
03.00 TO 03.99.................        06.00       215     1.2%    1.1%
04.00 TO 04.99.................        07.00        15     0.1%    0.1%
05.00..........................        08.00         1     0.0%    0.0%
                                                 -----    -----   -----
 TOTALS:                                         17285   100.0%  100.0%

NOTE: This item is stored as a continuous variable in the
data file.  Values were temporarily collapsed for display
in this users manual
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Question F2RCHE_C

Tape Pos. 404-407
Format: R4.2

F2RCHE_C UNITS IN CHEMISTRY (NAEP)

Total Carnegie units in chemistry (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	8683	50.2%	56.1%
00.01 TO 00.49	02.00	13	0.1%	0.1%
00.50 TO 00.99	03.00	515	3.0%	2.7%
01.00 TO 01.99	04.00	7435	43.0%	38.3%
02.00 TO 02.99	05.00	612	3.5%	2.7%
03.00 TO 03.99	06.00	26	0.2%	0.1%
05.00 TO 06.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RPHY_C

Tape Pos. 408-411
Format: R4.2

F2RPHY_C UNITS IN PHYSICS (NAEP)

Total Carnegie units in physics (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13083	75.7%	80.3%
00.01 TO 00.49	02.00	15	0.1%	0.1%
00.50 TO 00.99	03.00	322	1.9%	1.7%
01.00 TO 01.99	04.00	3624	21.0%	17.0%
02.00 TO 02.99	05.00	231	1.3%	0.9%
03.00 TO 03.50	06.00	10	0.1%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2ROSC_C

Tape Pos. 412-415
Format: R4.2

F2ROSC_C UNITS IN OTHER SCIENCE COURSES (NAEP)

Total Carnegie units in other science courses (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	7031	40.7%	40.4%
00.01 TO 00.49	02.00	50	0.3%	0.3%
00.50 TO 00.99	03.00	1191	6.9%	7.7%
01.00 TO 01.99	04.00	8203	47.5%	46.8%
02.00 TO 02.99	05.00	758	4.4%	4.6%
03.00 TO 03.99	06.00	40	0.2%	0.2%
04.00 TO 04.99	07.00	9	0.1%	0.1%
05.00 TO 06.00	08.00	3	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RSOC_C

Tape Pos. 416-419
Format: R4.2

F2RSOC_C UNITS IN SOCIAL STUDIES (NAEP)

Total Carnegie units in social studies (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	686	4.0%	5.7%
00.01 TO 00.49	02.00	10	0.1%	0.1%
00.50 TO 00.99	03.00	323	1.9%	2.5%
01.00 TO 01.99	04.00	1136	6.6%	8.1%
02.00 TO 02.99	05.00	2506	14.5%	14.9%
03.00 TO 03.99	06.00	7270	42.1%	39.6%
04.00 TO 04.99	07.00	4137	23.9%	22.7%
05.00 TO 13.50	08.00	1217	7.0%	6.4%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RHIS_C

Tape Pos. 420-423
Format: R4.2

F2RHIS_C UNITS IN HISTORY (NAEP)

Total Carnegie units in history (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	1292	7.5%	9.8%
00.01 TO 00.49	02.00	17	0.1%	0.4%
00.50 TO 00.99	03.00	473	2.7%	3.6%
01.00 TO 01.99	04.00	4673	27.0%	27.8%
02.00 TO 02.99	05.00	8426	48.7%	45.4%
03.00 TO 03.99	06.00	2113	12.2%	11.8%
04.00 TO 04.99	07.00	255	1.5%	1.0%
05.00 TO 09.00	08.00	36	0.2%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2ROSO_C

Tape Pos. 424-427
Format: R4.2

F2ROSO_C UNITS IN OTHER SOC. STUDIES (NAEP)

Total Carnegie units in other social studies courses (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	2244	13.0%	15.6%
00.01 TO 00.49	02.00	97	0.6%	0.4%
00.50 TO 00.99	03.00	1496	8.7%	8.8%
01.00 TO 01.99	04.00	8260	47.8%	45.9%
02.00 TO 02.99	05.00	4191	24.2%	23.6%
03.00 TO 03.99	06.00	833	4.8%	5.0%
04.00 TO 04.99	07.00	138	0.8%	0.7%
05.00 TO 07.00	08.00	26	0.2%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RCOM_C

Tape Pos. 428-431
Format: R4.2

F2RCOM_C UNITS IN COMPUTER SCIENCE (NAEP)

Total Carnegie units in computer science/programming/data (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	8351	48.3%	50.1%
00.01 TO 00.49	02.00	245	1.4%	1.6%
00.50 TO 00.99	03.00	4044	23.4%	22.4%
01.00 TO 01.99	04.00	3851	22.3%	21.2%
02.00 TO 02.99	05.00	640	3.7%	3.7%
03.00 TO 03.99	06.00	103	0.6%	0.7%
04.00 TO 04.99	07.00	31	0.2%	0.2%
05.00 TO 09.50	08.00	20	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVAG_C

Tape Pos. 432-435
Format: R4.2

F2RVAG_C UNITS IN AGRICULTURE (NAEP)

Total Carnegie units in agriculture (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15991	92.5%	92.4%
00.01 TO 00.49	02.00	23	0.1%	0.2%
00.50 TO 00.99	03.00	279	1.6%	1.6%
01.00 TO 01.99	04.00	469	2.7%	2.9%
02.00 TO 02.99	05.00	249	1.4%	1.5%
03.00 TO 03.99	06.00	121	0.7%	0.6%
04.00 TO 04.99	07.00	96	0.6%	0.5%
05.00 TO 13.50	08.00	57	0.3%	0.3%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question F2RVBU_C

Tape Pos. 436-439
Format: R4.2

F2RVBU_C UNITS IN BUSINESS (NAEP)

Total Carnegie units in business (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	12262	70.9%	71.2%
00.01 TO 00.49	02.00	77	0.4%	0.4%
00.50 TO 00.99	03.00	1262	7.3%	7.4%
01.00 TO 01.99	04.00	2413	14.0%	13.9%
02.00 TO 02.99	05.00	748	4.3%	4.3%
03.00 TO 03.99	06.00	301	1.7%	1.5%
04.00 TO 04.99	07.00	115	0.7%	0.7%
05.00 TO 11.00	08.00	107	0.6%	0.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVGN_C

Tape Pos. 440-443
Format: R4.2

F2RVGN_C UNITS IN GENERAL INTRO. VOC. (NAEP)

Total Carnegie units in gen. introductory vocational courses (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13334	77.1%	76.8%
00.01 TO 00.49	02.00	36	0.2%	0.4%
00.50 TO 00.99	03.00	1229	7.1%	7.2%
01.00 TO 01.99	04.00	1966	11.4%	11.1%
02.00 TO 02.99	05.00	412	2.4%	2.6%
03.00 TO 03.99	06.00	197	1.1%	1.3%
04.00 TO 04.99	07.00	46	0.3%	0.2%
05.00 TO 10.50	08.00	65	0.4%	0.4%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVHE_C

Tape Pos. 444-447
Format: R4.2

F2RVHE_C UNITS IN HEALTH/HUMAN RESOURCES (NAEP)

Total Carnegie units in health and human resources (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16547	95.7%	96.1%
00.01 TO 00.49	02.00	117	0.7%	0.6%
00.50 TO 00.99	03.00	369	2.1%	1.7%
01.00 TO 01.99	04.00	140	0.8%	0.9%
02.00 TO 02.99	05.00	49	0.3%	0.4%
03.00 TO 03.99	06.00	40	0.2%	0.2%
04.00 TO 04.99	07.00	9	0.1%	0.0%
05.00 TO 10.80	08.00	14	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVHO_C

Tape Pos. 448-451
Format: R4.2

F2RVHO_C UNITS IN VOC. HOME ECONOMICS (NAEP)

Total Carnegie units in vocational home economics (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15881	91.9%	91.3%
00.01 TO 00.49	02.00	39	0.2%	0.3%
00.50 TO 00.99	03.00	724	4.2%	4.3%
01.00 TO 01.99	04.00	375	2.2%	2.6%
02.00 TO 02.99	05.00	133	0.8%	0.8%
03.00 TO 03.99	06.00	62	0.4%	0.4%
04.00 TO 04.99	07.00	40	0.2%	0.3%
05.00 TO 10.00	08.00	31	0.2%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVMA_C

Tape Pos. 452-455
Format: R4.2

F2RVMA_C UNITS IN MARKETING/DISTRIBUTION (NAEP)

Total Carnegie units in marketing and distribution (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16507	95.5%	95.7%
00.01 TO 00.49	02.00	16	0.1%	0.1%
00.50 TO 00.99	03.00	262	1.5%	1.4%
01.00 TO 01.99	04.00	288	1.7%	1.7%
02.00 TO 02.99	05.00	94	0.5%	0.6%
03.00 TO 03.99	06.00	82	0.5%	0.4%
04.00 TO 04.99	07.00	20	0.1%	0.1%
05.00 TO 07.00	08.00	16	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVTE_C

Tape Pos. 456-459
Format: R4.2

F2RVTE_C UNITS IN TECHNICAL (NAEP)

Total Carnegie units in technical (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17014	98.4%	98.4%
00.01 TO 00.49	02.00	7	0.0%	0.2%
00.50 TO 00.99	03.00	99	0.6%	0.5%
01.00 TO 01.99	04.00	131	0.8%	0.6%
02.00 TO 02.99	05.00	21	0.1%	0.2%
03.00 TO 03.99	06.00	8	0.0%	0.0%
04.00 TO 04.99	07.00	4	0.0%	0.0%
05.00 TO 06.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RVTR_C

Tape Pos. 460-463
Format: R4.2

F2RVTR_C UNITS IN TRADE AND INDUSTRY (NAEP)

Total Carnegie units in trade and industry (NAEP)

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13526	78.3%	77.4%
00.01 TO 00.49	02.00	55	0.3%	0.3%
00.50 TO 00.99	03.00	942	5.4%	5.7%
01.00 TO 01.99	04.00	1336	7.7%	7.9%
02.00 TO 02.99	05.00	600	3.5%	3.6%
03.00 TO 03.99	06.00	344	2.0%	2.0%
04.00 TO 04.99	07.00	178	1.0%	1.1%
05.00 TO 21.99	08.00	304	1.8%	2.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2RO1_C

Tape Pos. 464-467
Format: R4.2

F2RO1_C UNITS IN AGRIBUSINESS/AG. PRODUCTION

Total Carnegie units in agribusiness and agricultural production

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16348	94.6%	94.4%
00.01 TO 00.49	02.00	21	0.1%	0.1%
00.50 TO 00.99	03.00	199	1.2%	1.5%
01.00 TO 01.99	04.00	396	2.3%	2.2%
02.00 TO 02.99	05.00	153	0.9%	0.8%
03.00 TO 03.99	06.00	81	0.5%	0.5%
04.00 TO 04.99	07.00	51	0.3%	0.3%
05.00 TO 11.00	08.00	37	0.2%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R02_C

Tape Pos. 468-471
Format: R4.2

F2R02_C UNITS IN AGRICULTURAL SCIENCES

Total Carnegie units in agricultural sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16492	95.4%	95.1%
00.01 TO 00.49	02.00	4	0.0%	0.0%
00.50 TO 00.99	03.00	155	0.9%	1.2%
01.00 TO 01.99	04.00	399	2.3%	2.3%
02.00 TO 02.99	05.00	138	0.8%	0.8%
03.00 TO 03.99	06.00	49	0.3%	0.4%
04.00 TO 04.99	07.00	36	0.2%	0.2%
05.00 TO 06.75	08.00	12	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R03_C

Tape Pos. 472-475
Format: R4.2

F2R03_C UNITS IN RENEWABLE NATURAL RESOURCES

Total Carnegie units in renewable natural resources

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17023	98.5%	98.6%
00.01 TO 00.49	02.00	2	0.0%	0.0%
00.50 TO 00.99	03.00	173	1.0%	0.9%
01.00 TO 01.99	04.00	70	0.4%	0.4%
02.00 TO 02.99	05.00	11	0.1%	0.0%
03.00 TO 03.99	06.00	1	0.0%	0.0%
04.00 TO 04.99	07.00	3	0.0%	0.0%
05.00 TO 06.00	08.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R04_C

Tape Pos. 476-479
Format: R4.2

F2R04_C UNITS IN ARCHITECTUR/ENV. DESIGN

Total Carnegie units in architecture and environmental design

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17179	99.4%	99.4%
00.01 TO 00.49	02.00	11	0.1%	0.1%
00.50 TO 00.99	03.00	75	0.4%	0.5%
01.00 TO 01.99	04.00	17	0.1%	0.1%
02.00 TO 02.50	05.00	3	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R05_C

Tape Pos. 480-483
Format: R4.2

F2R05_C UNITS IN AREA AND ETHNIC STUDIES

Total Carnegie units in area and ethnic studies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13966	80.8%	81.9%
00.01 TO 00.49	02.00	85	0.5%	0.6%
00.50 TO 00.99	03.00	795	4.6%	4.1%
01.00 TO 01.99	04.00	1658	9.6%	8.9%
02.00 TO 02.99	05.00	626	3.6%	3.7%
03.00 TO 03.99	06.00	134	0.8%	0.9%
04.00 TO 04.99	07.00	4	0.0%	0.0%
05.00 TO 08.00	08.00	17	0.1%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R06_C

Tape Pos. 484-487
Format: R4.2

F2R06_C UNITS IN BUSINESS AND MANAGEMENT

Total Carnegie units in business and management

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	14455	83.6%	84.1%
00.01 TO 00.49	02.00	39	0.2%	0.3%
00.50 TO 00.99	03.00	1194	6.9%	6.8%
01.00 TO 01.99	04.00	1400	8.1%	7.7%
02.00 TO 02.99	05.00	144	0.8%	0.9%
03.00 TO 03.99	06.00	27	0.2%	0.1%
04.00 TO 04.99	07.00	19	0.1%	0.1%
05.00 TO 09.00	08.00	7	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R07_C

Tape Pos. 488-491
Format: R4.2

F2R07_C UNITS IN BUSINESS AND OFFICE

Total Carnegie units in business and office

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	6560	38.0%	38.5%
00.01 TO 00.49	02.00	145	0.8%	0.6%
00.50 TO 00.99	03.00	3208	18.6%	18.0%
01.00 TO 01.99	04.00	4502	26.0%	26.2%
02.00 TO 02.99	05.00	1644	9.5%	9.8%
03.00 TO 03.99	06.00	676	3.9%	3.7%
04.00 TO 04.99	07.00	290	1.7%	1.5%
05.00 TO 11.00	08.00	260	1.5%	1.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R08_C

Tape Pos. 492-495
Format: R4.2

F2R08_C UNITS IN MARKETING AND DISTRIBUTION

Total Carnegie units in marketing and distribution

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16034	92.8%	92.9%
00.01 TO 00.49	02.00	18	0.1%	0.1%
00.50 TO 00.99	03.00	432	2.5%	2.5%
01.00 TO 01.99	04.00	469	2.7%	2.7%
02.00 TO 02.99	05.00	154	0.9%	0.7%
03.00 TO 03.99	06.00	93	0.5%	0.6%
04.00 TO 04.99	07.00	54	0.3%	0.3%
05.00 TO 08.50	08.00	31	0.2%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R09_C

Tape Pos. 496-499
Format: R4.2

F2R09_C UNITS IN COMMUNICATIONS

Total Carnegie units in communications

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15140	87.6%	88.6%
00.01 TO 00.49	02.00	37	0.2%	0.3%
00.50 TO 00.99	03.00	726	4.2%	4.1%
01.00 TO 01.99	04.00	1021	5.9%	5.4%
02.00 TO 02.99	05.00	272	1.6%	1.3%
03.00 TO 03.99	06.00	72	0.4%	0.3%
04.00 TO 04.99	07.00	15	0.1%	0.1%
05.00 TO 06.00	08.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question F2R10_C

Tape Pos. 500-503
Format: R4.2

F2R10_C UNITS IN COMMUNICATION TECHNOLOGIES

Total Carnegie units in communication technologies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16642	96.3%	96.4%
00.01 TO 00.49	02.00	23	0.1%	0.3%
00.50 TO 00.99	03.00	310	1.8%	1.6%
01.00 TO 01.99	04.00	256	1.5%	1.3%
02.00 TO 02.99	05.00	35	0.2%	0.4%
03.00 TO 03.99	06.00	12	0.1%	0.0%
04.00 TO 04.99	07.00	4	0.0%	0.0%
05.00 TO 06.00	08.00	3	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R11_C

Tape Pos. 504-507
Format: R4.2

F2R11_C UNITS IN COMPUTER/INFORMATION SCIENCES

Total Carnegie units in computer and information sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	10389	60.1%	61.8%
00.01 TO 00.49	02.00	247	1.4%	1.7%
00.50 TO 00.99	03.00	3814	22.1%	20.6%
01.00 TO 01.99	04.00	2459	14.2%	14.0%
02.00 TO 02.99	05.00	311	1.8%	1.5%
03.00 TO 03.99	06.00	43	0.2%	0.3%
04.00 TO 04.99	07.00	12	0.1%	0.1%
05.00 TO 09.00	08.00	10	0.1%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R12_C

Tape Pos. 508-511
Format: R4.2

F2R12_C UNITS IN CONSUMER/PERSONAL SERVICES

Total Carnegie units in consumer/personal/miscellaneous services

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17135	99.1%	98.6%
00.01 TO 00.49	02.00	2	0.0%	0.0%
00.50 TO 00.99	03.00	20	0.1%	0.1%
01.00 TO 01.99	04.00	20	0.1%	0.5%
02.00 TO 02.99	05.00	17	0.1%	0.1%
03.00 TO 03.99	06.00	33	0.2%	0.2%
04.00 TO 04.99	07.00	5	0.0%	0.0%
05.00 TO 13.50	08.00	53	0.3%	0.4%
TOTALS:		17285	100.0%	100.0%

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Question F2R13_C

Tape Pos. 512-515
Format: R4.2

F2R13_C UNITS IN EDUCATION

Total Carnegie units in education

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17252	99.8%	99.8%
00.01 TO 00.49	02.00	19	0.1%	0.1%
00.50 TO 00.99	03.00	6	0.0%	0.0%
01.00 TO 01.99	04.00	7	0.0%	0.0%
03.00	06.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

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Question F2R14_C

Tape Pos. 516-519
Format: R4.2

F2R14_C UNITS IN ENGINEERING

Total Carnegie units in engineering

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17252	99.8%	99.8%
00.50 TO 00.99	03.00	10	0.1%	0.0%
01.00 TO 01.99	04.00	22	0.1%	0.1%
04.00	07.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R15_C

Tape Pos. 520-523
Format: R4.2

F2R15_C UNITS IN ENGINEERING TECHNOLOGIES

Total Carnegie units in engineering and engineering-related technologies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16734	96.8%	97.3%
00.01 TO 00.49	02.00	15	0.1%	0.1%
00.50 TO 00.99	03.00	207	1.2%	1.1%
01.00 TO 01.99	04.00	236	1.4%	1.1%
02.00 TO 02.99	05.00	49	0.3%	0.3%
03.00 TO 03.99	06.00	20	0.1%	0.1%
04.00 TO 04.99	07.00	9	0.1%	0.0%
05.00 TO 09.00	08.00	14	0.1%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R16_C

Tape Pos. 524-527
Format: R4.2

F2R16_C UNITS IN FOREIGN LANGUAGES

Total Carnegie units in foreign languages

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	5254	30.4%	36.4%
00.01 TO 00.49	02.00	16	0.1%	0.1%
00.50 TO 00.99	03.00	507	2.9%	3.2%
01.00 TO 01.99	04.00	2526	14.6%	14.9%
02.00 TO 02.99	05.00	4591	26.6%	24.8%
03.00 TO 03.99	06.00	2451	14.2%	12.1%
04.00 TO 04.99	07.00	1413	8.2%	6.3%
05.00 TO 15.50	08.00	527	3.0%	2.1%
TOTALS:		17285	100.0%	100.0%

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Question F2R17_C

Tape Pos. 528-531
Format: R4.2

F2R17_C UNITS IN ALLIED HEALTH

Total Carnegie units in allied health

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16592	96.0%	96.4%
00.01 TO 00.49	02.00	126	0.7%	0.6%
00.50 TO 00.99	03.00	271	1.6%	1.2%
01.00 TO 01.99	04.00	141	0.8%	0.8%
02.00 TO 02.99	05.00	70	0.4%	0.5%
03.00 TO 03.99	06.00	42	0.2%	0.2%
04.00 TO 04.99	07.00	16	0.1%	0.1%
05.00 TO 13.30	08.00	27	0.2%	0.1%
TOTALS:		17285	100.0%	100.0%

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Question F2R18_C

Tape Pos. 532-535
Format: R4.2

F2R18_C UNITS IN HEALTH SCIENCES

Total Carnegie units in health sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17241	99.7%	99.8%
00.01 TO 00.49	02.00	7	0.0%	0.0%
00.50 TO 00.99	03.00	25	0.1%	0.1%
01.00 TO 01.99	04.00	10	0.1%	0.0%
02.00 TO 02.99	05.00	1	0.0%	0.0%
03.00	06.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R19_C

Tape Pos. 536-539
Format: R4.2

F2R19_C UNITS IN HOME ECONOMICS

Total Carnegie units in home economics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17229	99.7%	99.7%
00.01 TO 00.49	02.00	1	0.0%	0.0%
00.50 TO 00.99	03.00	39	0.2%	0.2%
01.00 TO 01.99	04.00	12	0.1%	0.1%
02.00 TO 02.50	05.00	4	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R20_C

Tape Pos. 540-543
Format: R4.2

F2R20_C UNITS IN VOCATIONAL HOME ECONOMICS

Total Carnegie units in vocational home economics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	10123	58.6%	56.9%
00.01 TO 00.49	02.00	172	1.0%	1.1%
00.50 TO 00.99	03.00	2483	14.4%	14.3%
01.00 TO 01.99	04.00	2931	17.0%	18.2%
02.00 TO 02.99	05.00	967	5.6%	5.9%
03.00 TO 03.99	06.00	342	2.0%	2.0%
04.00 TO 04.99	07.00	154	0.9%	0.9%
05.00 TO 11.00	08.00	113	0.7%	0.7%
TOTALS:		17285	100.0%	100.0%

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Question F2R21_C

Tape Pos. 544-547
Format: R4.2

F2R21_C UNITS IN INDUSTRIAL ARTS

Total Carnegie units in industrial arts

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15232	88.1%	87.6%
00.01 TO 00.49	02.00	49	0.3%	0.2%
00.50 TO 00.99	03.00	534	3.1%	3.3%
01.00 TO 01.99	04.00	1056	6.1%	6.5%
02.00 TO 02.99	05.00	202	1.2%	1.1%
03.00 TO 03.99	06.00	94	0.5%	0.6%
04.00 TO 04.99	07.00	50	0.3%	0.2%
05.00 TO 13.00	08.00	68	0.4%	0.5%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R22_C

Tape Pos. 548-551
Format: R4.2

F2R22_C UNITS IN LAW

Total Carnegie units in law

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16261	94.1%	94.1%
00.01 TO 00.49	02.00	43	0.2%	0.4%
00.50 TO 00.99	03.00	818	4.7%	4.5%
01.00 TO 01.99	04.00	161	0.9%	1.0%
02.00 TO 02.50	05.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R23_C

Tape Pos. 552-555
Format: R4.2

F2R23_C UNITS IN LETTERS

Total Carnegie units in letters

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	491	2.8%	4.3%
00.01 TO 00.49	02.00	9	0.1%	0.0%
00.50 TO 00.99	03.00	262	1.5%	1.8%
01.00 TO 01.99	04.00	887	5.1%	6.4%
02.00 TO 02.99	05.00	1073	6.2%	7.5%
03.00 TO 03.99	06.00	2998	17.3%	16.2%
04.00 TO 04.99	07.00	9558	55.3%	52.2%
05.00 TO 13.00	08.00	2007	11.6%	11.5%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R24_C

Tape Pos. 556-559
Format: R4.2

F2R24_C UNITS IN LIBERAL/GENERAL STUDIES

Total Carnegie units in liberal/general studies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16858	97.5%	97.7%
00.01 TO 00.49	02.00	60	0.3%	0.4%
00.50 TO 00.99	03.00	185	1.1%	1.1%
01.00 TO 01.99	04.00	140	0.8%	0.6%
02.00 TO 02.99	05.00	27	0.2%	0.1%
03.00 TO 03.99	06.00	11	0.1%	0.0%
04.00 TO 04.99	07.00	3	0.0%	0.0%
05.00 TO 05.50	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R25_C

Tape Pos. 560-563
Format: R4.2

F2R25_C UNITS IN LIBRARY AND ARCHIVAL SCIENCES

Total Carnegie units in library and archival sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16986	98.3%	97.9%
00.01 TO 00.49	02.00	76	0.4%	0.5%
00.50 TO 00.99	03.00	110	0.6%	0.9%
01.00 TO 01.99	04.00	106	0.6%	0.6%
02.00 TO 02.99	05.00	5	0.0%	0.0%
03.00	06.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

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Question F2R26_C

Tape Pos. 564-567
Format: R4.2

F2R26_C UNITS IN LIFE SCIENCES

Total Carnegie units in life sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	2234	12.9%	15.6%
00.01 TO 00.49	02.00	22	0.1%	0.3%
00.50 TO 00.99	03.00	803	4.6%	5.3%
01.00 TO 01.99	04.00	11184	64.7%	63.0%
02.00 TO 02.99	05.00	2811	16.3%	14.5%
03.00 TO 03.99	06.00	215	1.2%	1.1%
04.00 TO 04.99	07.00	15	0.1%	0.1%
05.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R27_C

Tape Pos. 568-571
Format: R4.2

F2R27_C UNITS IN MATHEMATICS

Total Carnegie units in mathematics

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	573	3.3%	4.6%
00.01 TO 00.49	02.00	5	0.0%	0.0%
00.50 TO 00.99	03.00	344	2.0%	2.7%
01.00 TO 01.99	04.00	1550	9.0%	10.7%
02.00 TO 02.99	05.00	3672	21.2%	23.7%
03.00 TO 03.99	06.00	5525	32.0%	31.2%
04.00 TO 04.99	07.00	4879	28.2%	23.2%
05.00 TO 08.33	08.00	737	4.3%	3.9%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R28_C

Tape Pos. 572-575
Format: R4.2

F2R28_C UNITS IN MILITARY SCIENCES

Total Carnegie units in military sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16907	97.8%	97.0%
00.01 TO 00.49	02.00	1	0.0%	0.0%
00.50 TO 00.99	03.00	72	0.4%	0.6%
01.00 TO 01.99	04.00	140	0.8%	1.0%
02.00 TO 02.99	05.00	73	0.4%	0.8%
03.00 TO 03.99	06.00	39	0.2%	0.2%
04.00 TO 04.99	07.00	40	0.2%	0.2%
05.00 TO 08.00	08.00	13	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R29_C

Tape Pos. 576-579
Format: R4.2

F2R29_C UNITS IN MILITARY TECHNOLOGIES

Total Carnegie units in military technologies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17284	100.0%	100.0%
00.50	03.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R30_C

Tape Pos. 580-583
Format: R4.2

F2R30_C UNITS IN MULTI/INTERDISC. STUDIES

Total Carnegie units in multi/interdisciplinary studies

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13198	76.4%	76.5%
00.01 TO 00.49	02.00	58	0.3%	0.5%
00.50 TO 00.99	03.00	957	5.5%	5.4%
01.00 TO 01.99	04.00	2744	15.9%	15.9%
02.00 TO 02.99	05.00	302	1.7%	1.5%
03.00 TO 03.99	06.00	20	0.1%	0.1%
04.00 TO 04.99	07.00	4	0.0%	0.0%
05.00 TO 06.00	08.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R31_C

Tape Pos. 584-587
Format: R4.2

F2R31_C UNITS IN PARKS AND RECREATION

Total Carnegie units in parks and recreation

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17274	99.9%	99.9%
00.50 TO 00.99	03.00	9	0.1%	0.0%
01.00	04.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

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Question F2R32_C

Tape Pos. 588-591
Format: R4.2

F2R32_C UNITS IN BASIC SKILLS

Total Carnegie units in basic skills

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13790	79.8%	78.9%
00.01 TO 00.49	02.00	446	2.6%	3.0%
00.50 TO 00.99	03.00	1412	8.2%	7.6%
01.00 TO 01.99	04.00	975	5.6%	6.4%
02.00 TO 02.99	05.00	300	1.7%	1.9%
03.00 TO 03.99	06.00	202	1.2%	1.2%
04.00 TO 04.99	07.00	61	0.4%	0.3%
05.00 TO 11.75	08.00	99	0.6%	0.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R33_C

Tape Pos. 592-595
Format: R4.2

F2R33_C UNITS IN CITIZENSHIP/CIVIC ACTIVITIES

Total Carnegie units in citizenship/civic activities

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	14594	84.4%	84.8%
00.01 TO 00.49	02.00	208	1.2%	1.1%
00.50 TO 00.99	03.00	1104	6.4%	6.2%
01.00 TO 01.99	04.00	1107	6.4%	6.3%
02.00 TO 02.99	05.00	208	1.2%	1.1%
03.00 TO 03.99	06.00	44	0.3%	0.4%
04.00 TO 04.99	07.00	13	0.1%	0.1%
05.00 TO 10.00	08.00	7	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

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Question F2R34_C

Tape Pos. 596-599
Format: R4.2

F2R34_C UNITS IN HEALTH-RELATED ACTIVITIES

Total Carnegie units in health-related activities

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	1384	8.0%	7.6%
00.01 TO 00.49	02.00	196	1.1%	1.2%
00.50 TO 00.99	03.00	1780	10.3%	11.0%
01.00 TO 01.99	04.00	6696	38.7%	39.3%
02.00 TO 02.99	05.00	4865	28.1%	28.9%
03.0C TO 03.99	06.00	1707	9.9%	8.6%
04.00 TO 04.99	07.00	529	3.1%	2.8%
05.00 TO 15.25	08.00	128	0.7%	0.6%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R35_C

Tape Pos. 600-603
Format: R4.2

F2R35_C UNITS IN INTERPERSONAL SKILLS

Total Carnegie units in interpersonal skills

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16724	96.8%	97.0%
00.01 TO 00.49	02.00	74	0.4%	0.5%
00.50 TO 00.99	03.00	335	1.9%	1.7%
01.00 TO 01.99	04.00	132	0.8%	0.8%
02.00 TO 02.99	05.00	17	0.1%	0.1%
03.00 TO 03.99	06.00	2	0.0%	0.0%
04.00	07.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R36_C

Tape Pos. 604-607
Format: R4.2

F2R36_C UNITS IN LEISURE AND REC. ACTIVITIES

Total Carnegie units in leisure and recreational activities

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13024	75.3%	76.3%
00.01 TO 00.49	02.00	256	1.5%	1.5%
00.50 TO 00.99	03.00	1194	6.9%	7.2%
01.00 TO 01.99	04.00	1695	9.8%	9.3%
02.00 TO 02.99	05.00	704	4.1%	3.6%
03.00 TO 03.99	06.00	279	1.6%	1.4%
04.00 TO 04.99	07.00	109	0.6%	0.5%
05.00 TO 14.00	08.00	24	0.1%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R37_C

Tape Pos. 608-611
Format: R4.2

F2R37_C UNITS IN PERSONAL AWARENESS

Total Carnegie units in personal awareness

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16722	96.7%	96.3%
00.01 TO 00.49	02.00	44	0.3%	0.3%
00.50 TO 00.99	03.00	399	2.3%	2.8%
01.00 TO 01.99	04.00	113	0.7%	0.6%
02.00 TO 02.99	05.00	6	0.0%	0.0%
05.00 TO 06.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R38_C

Tape Pos. 612-615
Format: R4.2

F2R38_C UNITS IN PHILOSOPHY AND RELIGION

Total Carnegie units in philosophy and religion

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15643	90.5%	91.8%
00.01 TO 00.49	02.00	75	0.4%	0.2%
00.50 TO 00.99	03.00	401	2.3%	1.3%
01.00 TO 01.99	04.00	312	1.8%	1.9%
02.00 TO 02.99	05.00	194	1.1%	1.1%
03.00 TO 03.99	06.00	272	1.6%	1.6%
04.00 TO 04.99	07.00	374	2.2%	2.0%
05.00 TO 13.00	08.00	14	0.1%	0.1%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R39_C

Tape Pos. 616-619
Format: R4.2

F2R39_C UNITS IN THEOLOGY

Total Carnegie units in theology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17175	99.4%	99.1%
00.01 TO 00.49	02.00	40	0.2%	0.0%
00.50 TO 00.99	03.00	35	0.2%	0.3%
01.00 TO 01.99	04.00	20	0.1%	0.3%
02.00 TO 02.99	05.00	1	0.0%	0.0%
03.00 TO 03.99	06.00	2	0.0%	0.1%
04.00 TO 04.99	07.00	11	0.1%	0.0%
05.00 TO 07.25	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R40_C

Tape Pos. 620-623
Format: R4.2

F2R40_C UNITS IN PHYSICAL SCIENCES

Total Carnegie units in physical sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	2774	16.0%	19.2%
00.01 TO 00.49	02.00	23	0.1%	0.1%
00.50 TO 00.99	03.00	755	4.4%	4.8%
01.00 TO 01.99	04.00	6797	39.3%	41.6%
02.00 TO 02.99	05.00	4747	27.5%	24.3%
03.00 TO 03.99	C6.00	1937	11.2%	8.6%
04.00 TO 04.99	07.00	218	1.3%	1.1%
05.00 TO 08.00	08.00	34	0.2%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R41_C

Tape Pos. 624-627
Format: R4.2

F2R41_C UNITS IN SCIENCES TECHNOLOGY

Total Carnegie units in sciences technology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17218	99.6%	99.7%
00.01 TO 00.49	02.00	1	0.0%	0.0%
00.50 TO 00.99	03.00	26	0.2%	0.1%
01.00 TO 01.50	04.00	40	0.2%	0.2%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R42_C

Tape Pos. 628-631
Format: R4.2

F2R42_C UNITS IN PSYCHOLOGY

Total Carnegie units in psychology

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13614	78.8%	79.2%
00.01 TO 00.49	02.00	81	0.5%	0.6%
00.50 TO 00.99	03.00	2721	15.7%	15.2%
01.00 TO 01.99	04.00	857	5.0%	4.8%
02.00 TO 02.99	05.00	9	0.1%	0.0%
03.00 TO 03.99	06.00	1	0.0%	0.1%
04.00 TO 04.50	07.00	2	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R43_C

Tape Pos. 632-635
Format: R4.2

F2R43_C UNITS IN PROTECTIVE SERVICES

Total Carnegie units in protective services

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17077	98.8%	98.9%
00.01 TO 00.49	02.00	5	0.0%	0.0%
00.50 TO 00.99	03.00	143	0.8%	0.7%
01.00 TO 01.99	04.00	46	0.3%	0.3%
02.00 TO 02.99	05.00	8	0.0%	0.0%
03.00 TO 03.99	06.00	3	0.0%	0.0%
04.00 TO 04.99	07.00	2	0.0%	0.0%
05.00 TO 10.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R44_C

Tape Pos. 636-639
Format: R4.2

F2R44_C UNITS IN PUBLIC AFFAIRS

Total Carnegie units in public affairs

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17276	99.9%	99.9%
00.50 TO 00.99	03.00	4	0.0%	0.0%
01.00 TO 01.99	04.00	2	0.0%	0.0%
03.00 TO 03.99	06.00	2	0.0%	0.0%
05.00 TO 06.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R45_C

Tape Pos. 640-643
Format: R4.2

F2R45_C UNITS IN SOCIAL SCIENCES

Total Carnegie units in social sciences

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	794	4.6%	6.7%
00.01 TO 00.49	02.00	13	0.1%	0.1%
00.50 TO 00.99	03.00	378	2.2%	3.0%
01.00 TO 01.99	04.00	1708	9.9%	10.9%
02.00 TO 02.99	05.00	4396	25.4%	24.9%
03.00 TO 03.99	06.00	7712	44.6%	40.8%
04.00 TO 04.99	07.00	2001	11.6%	11.8%
05.00 TO 11.00	08.00	283	1.6%	1.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R46_C

Tape Pos. 644-647
Format: R4.2

F2R46_C UNITS IN CONSTRUCTION TRADES

Total Carnegie units in construction trades

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16623	96.2%	96.0%
00.01 TO 00.49	02.00	8	0.0%	0.1%
00.50 TO 00.99	03.00	243	1.4%	1.3%
01.00 TO 01.99	04.00	193	1.1%	1.2%
02.00 TO 02.99	05.00	81	0.5%	0.5%
03.00 TO 03.99	06.00	53	0.3%	0.3%
04.00 TO 04.99	07.00	22	0.1%	0.2%
05.00 TO 21.99	08.00	62	0.4%	0.4%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R47_C

Tape Pos. 648-651
Format: R4.2

F2R47_C UNITS IN MECHANICS AND REPAIRERS

Total Carnegie units in mechanics and repairers

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	15830	91.6%	91.6%
00.01 TO 00.49	02.00	26	0.2%	0.1%
00.50 TO 00.99	03.00	530	3.1%	3.0%
01.00 TO 01.99	04.00	452	2.6%	2.5%
02.00 TO 02.99	05.00	179	1.0%	1.1%
03.00 TO 03.99	06.00	116	0.7%	0.7%
04.00 TO 04.99	07.00	50	0.3%	0.3%
05.00 TO 21.99	08.00	102	0.6%	0.6%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R48_C

Tape Pos. 652-655
Format: R4.2

F2R48_C UNITS IN PRECISION PRODUCTION

Total Carnegie units in precision production

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	13383	77.4%	77.0%
00.01 TO 00.49	02.00	66	0.4%	0.4%
00.50 TO 00.99	03.00	1045	6.0%	5.9%
01.00 TO 01.99	04.00	1647	9.5%	10.1%
02.00 TO 02.99	05.00	614	3.6%	3.5%
03.00 TO 03.99	06.00	301	1.7%	1.8%
04.00 TO 04.99	07.00	112	0.6%	0.7%
05.00 TO 13.00	08.00	117	0.7%	0.8%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R49_C

Tape Pos. 656-659
Format: R4.2

F2R49_C UNITS IN TRANS./MATERIAL MOVING

Total Carnegie units in transportation and material moving

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17136	99.1%	99.0%
00.01 TO 00.49	02.00	7	0.0%	0.0%
00.50 TO 00.99	03.00	86	0.5%	0.5%
01.00 TO 01.99	04.00	44	0.3%	0.3%
02.00 TO 02.99	05.00	8	0.0%	0.0%
03.00 TO 03.99	06.00	2	0.0%	0.0%
04.00 TO 04.99	07.00	1	0.0%	0.0%
05.00	08.00	1	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R50_C

Tape Pos. 660-663
Format: R4.2

F2R50_C UNITS IN VISUAL AND PERFORMING ARTS

Total Carnegie units in visual and performing arts

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	4771	27.6%	30.5%
00.01 TO 00.49	02.00	117	0.7%	0.7%
00.50 TO 00.99	03.00	1768	10.2%	10.3%
01.00 TO 01.99	04.00	5000	28.9%	29.2%
02.00 TO 02.99	05.00	2337	13.5%	12.8%
03.00 TO 03.99	06.00	1326	7.7%	6.4%
04.00 TO 04.99	07.00	1061	6.1%	5.5%
05.00 TO 16.00	08.00	905	5.2%	4.6%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R51_C

Tape Pos. 664-667
Format: R4.2

F2R51_C UNITS IN INTERNSHIPS

Total Carnegie units in internships

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17272	99.9%	100.0%
00.50 TO 00.99	03.00	8	0.0%	0.0%
01.00	04.00	5	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R54_C

Tape Pos. 668-671
Format: R4.2

F2R54_C UNITS IN ACADEMIC LIFE SKILLS

Total Carnegie units in academic life skills/functional curriculum

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17133	99.1%	99.2%
00.50 TO 00.99	03.00	115	0.7%	0.6%
01.00 TO 01.99	04.00	28	0.2%	0.2%
02.00 TO 02.99	05.00	3	0.0%	0.0%
04.00 TO 04.99	07.00	2	0.0%	0.0%
05.00 TO 09.00	08.00	4	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R55_C

Tape Pos. 672-675
Format: R4.2

F2R55_C UNITS IN VOCATIONAL LIFE SKILLS

Total Carnegie units in vocational life skills/functional curriculum

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	17090	98.9%	98.9%
00.01 TO 00.49	02.00	7	0.0%	0.0%
00.50 TO 00.99	03.00	99	0.6%	0.6%
01.00 TO 01.99	04.00	65	0.4%	0.4%
02.00 TO 02.99	05.00	12	0.1%	0.1%
03.00 TO 03.99	06.00	5	0.0%	0.0%
04.00 TO 04.99	07.00	2	0.0%	0.0%
05.00 TO 08.00	08.00	5	0.0%	0.0%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2R56_C

Tape Pos. 676-679
Format: R4.2

F2R56_C UNITS IN SUBJECT AREA SERVICES

Total Carnegie units in subject area services

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
00.00	01.00	16112	93.2%	92.9%
00.01 TO 00.49	02.00	139	0.8%	0.6%
00.50 TO 00.99	03.00	351	2.0%	2.0%
01.00 TO 01.99	04.00	371	2.1%	2.3%
02.00 TO 02.99	05.00	97	0.6%	0.8%
03.00 TO 03.99	06.00	62	0.4%	0.4%
04.00 TO 04.99	07.00	61	0.4%	0.4%
05.00 TO 15.50	08.00	92	0.5%	0.7%
TOTALS:		17285	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this users manual

Question F2TRP1FL

Tape Pos. 680-680
Format: I1

F2TRP1FL 8-12 GRADE PANEL MEMBER, AND TRANSCRIPT

Indicates whether or not a sample member was a part of the eighth-to twelfth-grade student panel and a transcript was collected for the sample member.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT IN 8-12 PANEL OR TRANSCRIPT NOT COLLECTED	0	3002	17.4%	24.5%
IN 8-12 PANEL AND TRANSCRIPT COLLECTED	1	14283	82.6%	75.5%
TOTALS:		17285	100.0%	100.0%

Question F2TRP2FL

Tape Pos. 681-681
Format: I1

F2TRP2FL 10-12 GRADE PANEL MEMBER, AND TRANSCRIPT

Indicates whether or not a sample member was a part of the tenth-to twelfth-grade student panel and a transcript was collected for the sample member.

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NOT IN 10-12 PANEL, OR NO TRANSCRIPT COLLECTED	0	1650	9.5%	16.1%
IN 10-12 PANEL AND TRANSCRIPT COLLECTED, BUT NOT IN 10TH GRADE	1	1010	5.8%	7.6%
IN 10-12 PANEL, TRANSCRIPT COLLECTED, ENROLLED IN 10TH GRADE	2	14625.	84.6%	76.3%
TOTALS:		17285	100.0%	100.0%

Question F2TRP1WT

Tape Pos. 682-691
Format: R10.4

F2TRP1WT TRANSCRIPT PANEL WEIGHT, GRADES 8-12

Transcript panel weight, grades 8-12

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
2.4483 TO 13753.8942	000001.00	14283	82.6%	100.0%
RESERVED CODES: MISSING	000000.00	3002	17.4%	(MISS)
TOTALS:		17285	100.0%	100.0%

Question F2TRP2WT

Tape Pos. 692-701
Format: R10.4

F2TRP2WT TRANSCRIPT PANEL WEIGHT, GRADES 10-12

Transcript panel weight, grades 10-12

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
2.4676 TO 13440.6231	000001.00	15635	90.5%	100.0%
RESERVED CODES: MISSING	000000.00	1650	9.5%	(MISS)
TOTALS:		17285	100.0%	100.0%

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NELS:88 Second Follow-Up

Transcript Component Course File Codebook

276

Question STU_ID

Tape Pos. 1-7
Format: I7

STU_ID STUDENT ID

Public student ID

Question F2SCH_ID

Tape Pos. 8-12
Format: I5

F2SCH_ID PUBLIC ID OF LAST ATTENDED SCHOOL

Public ID of last attended school

Question F2RDIFSC

Tape Pos. 13-14
Format: I2

F2RDIFSC SCHOOL AT WHICH COURSE WAS TAKEN

School at which course was taken

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
LAST ATTENDED SCHOOL..........	01	692447	96.9%	95.2%
OTHER SCHOOL..................	02	22200	3.1%	4.8%
TOTALS:		714647	100.0%	100.0%

Question F2RTRMSC

Tape Pos. 15-19
Format: I5

F2RTRMSC PUBLIC ID OF COURSE SCHOOL

Public ID of school at which course was taken

Question F2RTRMID

Tape Pos. 20-21
Format: I2

F2RTRMID TERM ID

ID assigned by data entry program to school year in which course was taken

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
01..............................	01	185453	26.0%	26.4%
02..............................	02	183276	25.6%	25.7%
03..............................	03	170631	23.9%	23.6%
04..............................	04	152319	21.3%	20.6%
05..............................	05	16105	2.3%	2.3%
06..............................	06	4617	0.6%	0.7%
07..............................	07	1583	0.2%	0.4%
08..............................	08	491	0.1%	0.2%
09..............................	09	114	0.0%	0.0%
10..............................	10	41	0.0%	0.0%
11..............................	11	12	0.0%	0.0%
12..............................	12	5	0.0%	0.0%
TOTALS:		714647	100.0%	100.0%

Question F2RCRSID

Tape Pos. 22-23
Format: I2

F2RCRSID COURSE ID

ID assigned to course by data entry program

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
01..............................	01	68894	9.6%	9.8%
02..............................	02	66558	9.3%	9.5%
03..............................	03	65502	9.2%	9.4%
04..............................	04	65192	9.1%	9.3%
05..............................	05	64490	9.0%	9.2%
06..............................	06	62822	8.8%	8.9%
07..............................	07	57586	8.1%	8.1%
08..............................	08	51750	7.2%	7.2%
09..............................	09	45874	6.4%	6.3%
10..............................	10	41634	5.8%	5.7%
11..............................	11	37190	5.2%	5.0%
12..............................	12	33617	4.7%	4.5%
13..............................	13	19342	2.7%	2.5%
14..............................	14	14301	2.0%	1.8%
15..............................	15	6117	0.9%	0.8%
16..............................	16	3877	0.5%	0.5%
17..............................	17	2191	0.3%	0.3%
18..............................	18	1620	0.2%	0.2%
19..............................	19	1027	0.1%	0.1%
20..............................	20	846	0.1%	0.1%
21..............................	21	717	0.1%	0.1%
22..............................	22	638	0.1%	0.1%
23..............................	23	584	0.1%	0.1%
24..............................	24	541	0.1%	0.1%
25..............................	25	442	0.1%	0.1%
26..............................	26	391	0.1%	0.1%
27..............................	27	327	0.0%	0.1%
28..............................	28	283	0.0%	0.0%
29..............................	29	164	0.0%	0.0%
30..............................	30	130	0.0%	0.0%
TOTALS:		714647	100.0%	100.0%

Question F2RYEAR

Tape Pos. 24-25
Format: I2

F2RYEAR SCHOOL YEAR IN WHICH COURSE WAS TAKEN

School year in which course was taken

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
1985............................	85	24	0.0%	0.0%
1986............................	86	724	0.1%	0.1%
1987............................	87	5071	0.7%	0.8%
1988............................	88	187126	26.2%	26.4%
1989............................	89	188226	26.3%	26.6%
1990............................	90	175008	24.5%	24.4%
1991............................	91	157821	22.1%	21.6%
1992............................	92	351	0.0%	0.1%
RESERVED CODES:				
MISSING DATA.................	98	296	0.0%	(MISS)
TOTALS:		714647	100.0%	100.0%

Question F2RGRLEV

Tape Pos. 26-27
Format: I2

F2RGRLEV GRADE LEVEL IN WHICH COURSE WAS TAKEN

Grade level in which course was taken

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
GRADE 7.........................	07	26	0.0%	0.0%
GRADE 8.........................	08	942	0.1%	0.1%
GRADE 9.........................	09	195588	27.4%	28.1%
GRADE 10........................	10	190178	26.6%	27.1%
GRADE 11........................	11	171348	24.0%	23.7%
GRADE 12........................	12	154626	21.6%	21.0%
NO GRADE LEVEL..................	20	127	0.0%	0.0%
RESERVED CODES:				
MISSING DATA.................	98	1812	0.3%	(MISS)
TOTALS:		714647	100.0%	100.0%

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Question F2RCRSDP

Tape Pos. 28-47
Format: A20

F2RCRSDP COURSE DEPARTMENT

Department under which course was offered

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA PRESENT	1	51486	7.2%	100.0%
RESERVED CODES:				
MISSING DATA	8	663161	92.8%	(MISS)
TOTALS:		714647	100.0%	100.0%

NOTE: The verbatim responses to this item are in the datafile but there are too many unique responses to display in this codebook. As with any other variable, users can select and extract this variable and subsequently review it. For example, PROC PRINT in SAS may be used for such a list either in hardcopy or electronic output.

Question F2RCRSE

Tape Pos. 48-92
Format: A45

F2RCRSE COURSE TITLE

Course title

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA PRESENT	1	714604	100.0%	100.0%
RESERVED CODES:				
MISSING DATA	8	43	0.0%	(MISS)
TOTALS:		714647	100.0%	100.0%

NOTE: The verbatim responses to this item are in the datafile but there are too many unique responses to display in this codebook. As with any other variable, users can select and extract this variable and subsequently review it. For example, PROC PRINT in SAS may be used for such a list either in hardcopy or electronic output.

Question F2RCRSNO

Tape Pos. 93-99
Format: A7

F2RCRSNO SCHOOL-ASSIGNED COURSE NUMBER

School-assigned course number

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
DATA PRESENT	0000001	111335	15.6%	15.9%
MISSING DATA	0000008	603312	84.4%	84.1%
TOTALS:		714647	100.0%	100.0%

NOTE: The verbatim responses to this item are in the datafile but there are too many unique responses to display in this codebook. As with any other variable, users can select and extract this variable and subsequently review it. For example, PROC PRINT in SAS may be used for such a list either in hardcopy or electronic output.

Question F2RT_TYP

Tape Pos. 100-101
Format: I2

F2RT_TYP TERM IN WHICH COURSE WAS TAKEN

Term in which course was taken

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
YEAR-LONG	01	135616	19.0%	20.2%
SEMESTER 1	02	260750	36.5%	36.6%
SEMESTER 2	03	258320	36.1%	36.1%
TRIMESTER 1	04	4167	0.6%	0.5%
TRIMESTER 2	05	3993	0.6%	0.5%
TRIMESTER 3	06	3958	0.6%	0.5%
QUARTER 1	07	3866	0.5%	0.7%
QUARTER 2	08	3652	0.5%	0.6%
QUARTER 3	09	3522	0.5%	0.6%
QUARTER 4	10	3453	0.5%	0.6%
SEMESTER	12	17187	2.4%	2.9%
TRIMESTER	13	435	0.1%	0.1%
QUARTER	14	2279	0.3%	0.2%
RESERVED CODES:				
MISSING DATA	98	13449	1.9%	(MISS)
TOTALS:		714647	100.0%	100.0%

Question F2RCRED

Tape Pos. 102-105
Format: R4.2

F2RCRED SCHOOL-ASSIGNED COURSE CREDITS

School-assigned course credits

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	01.00	61598	8.6%	10.3%
00.01 TO 00.25	02.00	32467	4.5%	4.3%
00.26 TO 00.50	03.00	362250	50.7%	50.0%
00.51 TO 01.00	04.00	140539	19.7%	19.0%
01.01 TO 02.00	05.00	7764	1.1%	1.5%
02.01 TO 03.00	06.00	13129	1.8%	1.9%
03.01 TO 04.00	07.00	1417	0.2%	0.2%
04.01 TO 05.00	08.00	89874	12.6%	12.3%
05.01 TO 06.00	09.00	915	0.1%	0.1%
06.01 TO 07.00	10.00	255	0.0%	0.0%
07.01 TO 08.00	11.00	112	0.0%	0.1%
08.01 TO 09.00	12.00	20	0.0%	0.0%
09.01 TO 10.00	13.00	1310	0.2%	0.2%
10.01 TO 11.00	14.00	5	0.0%	0.0%
11.01 TO 12.00	15.00	4	0.0%	0.0%
12.01 TO 13.00	16.00	6	0.0%	0.0%
13.01 TO 14.00	17.00	18	0.0%	0.0%
14.01 TO 15.00	18.00	221	0.0%	0.0%
15.01 TO 35.00	19.00	56	0.0%	0.0%
RESERVED CODES:				
MISSING DATA	99.98	2687	0.4%	(MISS)
TOTALS:		714647	100.0%	100.0%

NOTE: This item is stored as a continuous variable in the data file. Values were temporarily collapsed for display in this user's manual.

Question F2RSCRED

Tape Pos. 106-109
Format: R4.2

F2RSCRED STANDARDIZED CREDITS, IN CARNEGIE UNITS

Standardized credits, in Carnegie units

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
NONE	01.00	61602	8.6%	10.3%
00.01 TO 00.25	02.00	45174	6.3%	6.4%
00.26 TO 00.50	03.00	488127	68.3%	66.6%
00.51 TO 01.00	04.00	112322	15.7%	15.9%
01.01 TO 02.00	05.00	3845	0.5%	0.7%
02.01 TO 03.00	06.00	731	0.1%	0.1%
03.01 TO 04.00	07.00	103	0.0%	0.0%
04.01 TO 05.00	08.00	46	0.0%	0.0%
05.01 TO 06.00	09.00	2	0.0%	0.0%
06.01 TO 07.33	10.00	8	0.0%	0.0%
RESERVED CODES:				
MISSING DATA	99.98	2687	0.4%	(MISS)
TOTALS:		714647	100.0%	100.0%

Question F2RGRADE

Tape Pos. 110-111
Format: I2

F2RGRADE STANDARDIZED COURSE GRADE

Standardized course grade

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
A+	01	9933	1.4%	1.2%
A	02	138259	19.3%	17.6%
A-	03	34619	4.8%	4.1%
B+	04	32500	4.5%	4.1%
B	05	141266	19.8%	19.4%
B-	06	30376	4.3%	3.9%
C+	07	26487	3.7%	3.6%
C	08	116459	16.3%	17.5%
C-	09	20535	2.9%	2.9%
D+	10	13519	1.9%	2.0%
D	11	63598	8.9%	10.1%
D-	12	12657	1.8%	1.9%
F	13	45963	6.4%	7.9%
PASS	14	16081	2.3%	2.0%
UNSATISFACTORY	15	507	0.1%	0.1%
WITHDREW	16	2710	0.4%	0.5%
INCOMPLETE	17	786	0.1%	0.1%
NON-GRADED	18	3532	0.5%	0.5%
BLANK	19	2860	0.4%	0.6%
RESERVED CODES:				
MISSING DATA	98	2000	0.3%	(MISS)
TOTALS:		714647	100.0%	100.0%

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Question F2RCSSC

Tape Pos. 112-117
Format: I6

F2RCSSC CSSC CODE ASSIGNED TO COURSE

CSSC code assigned to course

RESPONSE	CODES	FREQ	PER-CENT	WGTD PCT
010100	010100	2	0.0%	0.0%
010111	010111	237	0.0%	0.0%
010121	010121	141	0.0%	0.0%
010131	010131	32	0.0%	0.0%
010141	010141	6	0.0%	0.0%
010151	010151	3	0.0%	0.0%
010161	010161	7	0.0%	0.0%
010171	010171	153	0.0%	0.0%
010172	010172	9	0.0%	0.0%
010181	010181	20	0.0%	0.0%
010182	010182	29	0.0%	0.0%
010200	010200	8	0.0%	0.0%
010211	010211	423	0.1%	0.1%
010212	010212	124	0.0%	0.0%
010213	010213	33	0.0%	0.0%
010214	010214	9	0.0%	0.0%
010221	010221	37	0.0%	0.0%
010231	010231	47	0.0%	0.0%
010241	010241	40	0.0%	0.0%
010251	010251	9	0.0%	0.0%
010261	010261	1	0.0%	0.0%
010271	010271	1	0.0%	0.0%
010300	010300	1	0.0%	0.0%
010311	010311	199	0.0%	0.0%
010312	010312	159	0.0%	0.0%
010313	010313	47	0.0%	0.0%
010321	010321	93	0.0%	0.0%
010331	010331	3	0.0%	0.0%
010411	010411	27	0.0%	0.0%
010412	010412	6	0.0%	0.0%
010421	010421	7	0.0%	0.0%
010500	010500	10	0.0%	0.0%
010511	010511	5	0.0%	0.0%
010521	010521	1	0.0%	0.0%
010600	010600	2	0.0%	0.0%
010611	010611	408	0.1%	0.1%
010621	010621	53	0.0%	0.0%
010631	010631	66	0.0%	0.0%
010641	010641	57	0.0%	0.0%
010651	010651	9	0.0%	0.0%
010661	010661	5	0.0%	0.0%
010662	010662	8	0.0%	0.0%
010671	010671	4	0.0%	0.0%
010681	010681	17	0.0%	0.0%
010700	010700	11	0.0%	0.0%
019900	019900	14	0.0%	0.0%
020100	020100	24	0.0%	0.0%
020111	020111	638	0.1%	0.1%
020121	020121	509	0.1%	0.1%
020122	020122	269	0.0%	0.0%
020123	020123	123	0.0%	0.0%
020124	020124	100	0.0%	0.0%
020200	020200	5	0.0%	0.0%
020211	020211	155	0.0%	0.0%
020212	020212	5	0.0%	0.0%
020221	020221	14	0.0%	0.0%
020222	020222	9	0.0%	0.0%
020231	020231	3	0.0%	0.0%
020241	020241	10	0.0%	0.0%
020251	020251	2	0.0%	0.0%
020261	020261	31	0.0%	0.0%
020271	020271	11	0.0%	0.0%
020272	020272	2	0.0%	0.0%
020281	020281	2	0.0%	0.0%
020300	020300	3	0.0%	0.0%
020411	020411	52	0.0%	0.0%
020421	020421	67	0.0%	0.0%
020422	020422	14	0.0%	0.0%
020423	020423	2	0.0%	0.0%
020500	020500	2	0.0%	0.0%
020511	020511	24	0.0%	0.0%
029900	029900	25	0.0%	0.0%
030100	030100	1	0.0%	0.0%
030200	030200	21	0.0%	0.0%
030211	030211	195	0.0%	0.0%
030212	030212	5	0.0%	0.0%
030221	030221	1	0.0%	0.0%
030500	030500	3	0.0%	0.0%
030511	030511	44	0.0%	0.0%
030512	030512	2	0.0%	0.0%
030521	030521	1	0.0%	0.0%
030600	030600	2	0.0%	0.0%
030611	030611	96	0.0%	0.0%
030621	030621	3	0.0%	0.0%
030711	030711	3	0.0%	0.0%
030712	030712	2	0.0%	0.0%
039900	039900	1	0.0%	0.0%
040100	040100	1	0.0%	0.0%
040200	040200	1	0.0%	0.0%
040211	040211	40	0.0%	0.0%
040212	040212	13	0.0%	0.0%
040221	040221	4	0.0%	0.0%
040500	040500	2	0.0%	0.0%
040511	040511	73	0.0%	0.0%
040600	040600	1	0.0%	0.0%
050100	050100	31	0.0%	0.0%
050101	050101	235	0.0%	0.0%
050102	050102	19	0.0%	0.0%
050103	050103	848	0.1%	0.1%
050104	050104	135	0.0%	0.0%
050105	050105	95	0.0%	0.0%
050107	050107	4	0.0%	0.0%
050108	050108	49	0.0%	0.0%
050111	050111	1	0.0%	0.0%
050112	050112	8	0.0%	0.0%
050113	050113	21	0.0%	0.0%
050114	050114	1216	0.2%	0.1%
050115	050115	269	0.0%	0.0%
050116	050116	206	0.0%	0.0%
050117	050117	679	0.1%	0.1%
050118	050118	11	0.0%	0.0%
050119	050119	131	0.0%	0.0%
050120	050120	14	0.0%	0.0%
050121	050121	25	0.0%	0.0%
050122	050122	7	0.0%	0.0%
050124	050124	23	0.0%	0.0%
050125	050125	46	0.0%	0.0%
050126	050126	2	0.0%	0.0%
050127	050127	80	0.0%	0.0%
050128	050128	8	0.0%	0.0%
050129	050129	20	0.0%	0.0%
050130	050130	7	0.0%	0.0%
050131	050131	9	0.0%	0.0%
050132	050132	2	0.0%	0.0%
050133	050133	81	0.0%	0.0%
050135	050135	13	0.0%	0.0%
050136	050136	21	0.0%	0.0%
050138	050138	1757	0.2%	0.3%
050139	050139	10	0.0%	0.0%
050140	050140	8	0.0%	0.0%
050200	050200	8	0.0%	0.0%
050211	050211	72	0.0%	0.0%
050221	050221	3	0.0%	0.0%
050231	050231	136	0.0%	0.0%
050251	050251	53	0.0%	0.0%
050261	050261	160	0.0%	0.0%
050271	050271	2	0.0%	0.0%
050281	050281	2	0.0%	0.0%
050291	050291	8	0.0%	0.0%
059900	059900	12	0.0%	0.0%
060100	060100	16	0.0%	0.0%
060111	060111	2270	0.3%	0.3%
060121	060121	1309	0.2%	0.2%
060131	060131	18	0.0%	0.0%
060141	060141	273	0.0%	0.0%
060211	060211	7	0.0%	0.0%
060300	060300	1	0.0%	0.0%
060311	060311	11	0.0%	0.0%
060400	060400	4	0.0%	0.0%
060411	060411	329	0.0%	0.0%
060500	060500	1	0.0%	0.0%
060511	060511	135	0.0%	0.0%
060600	060600	7	0.0%	0.0%
060711	060711	3	0.0%	0.0%
060811	060811	8	0.0%	0.0%
060900	060900	5	0.0%	0.0%
061011	061011	4	0.0%	0.0%
061200	061200	1	0.0%	0.0%
061300	061300	4	0.0%	0.0%
061400	061400	5	0.0%	0.0%
061411	061411	121	0.0%	0.0%
061500	061500	2	0.0%	0.0%
061600	061600	1	0.0%	0.0%
061711	061711	1	0.0%	0.0%
061800	061800	1	0.0%	0.0%
061811	061811	123	0.0%	0.0%
061900	061900	1	0.0%	0.0%
069900	069900	14	0.0%	0.0%
070100	070100	6	0.0%	0.0%
070111	070111	182	0.0%	0.0%
070112	070112	4	0.0%	0.0%
070121	070121	3848	0.5%	0.5%
070122	070122	689	0.1%	0.1%
070131	070131	44	0.0%	0.0%
070141	070141	91	0.0%	0.0%
070142	070142	5	0.0%	0.0%
070151	070151	653	0.1%	0.1%
070152	070152	7	0.0%	0.0%
070153	070153	203	0.0%	0.0%
070161	070161	143	0.0%	0.0%
070162	070162	6	0.0%	0.0%
070171	070171	1081	0.2%	0.2%
070172	070172	50	0.0%	0.0%
070200	070200	2	0.0%	0.0%
070201	070201	32	0.0%	0.0%
070211	070211	18	0.0%	0.0%
070221	070221	11	0.0%	0.0%
070231	070231	1	0.0%	0.0%
070241	070241	2	0.0%	0.0%
070251	070251	4	0.0%	0.0%
070300	070300	3	0.0%	0.0%
070311	070311	495	0.1%	0.1%
070321	070321	300	0.0%	0.0%
070322	070322	57	0.0%	0.0%
070331	070331	575	0.1%	0.1%
070332	070332	24	0.0%	0.0%
070341	070341	1	0.0%	0.0%
070351	070351	16	0.0%	0.0%
070361	070361	3415	0.5%	0.5%
070400	070400	7	0.0%	0.0%
070411	070411	396	0.1%	0.1%
070412	070412	53	0.0%	0.0%
070413	070413	1	0.0%	0.0%
070414	070414	21	0.0%	0.0%
070611	070611	290	0.0%	0.0%
070612	070612	13	0.0%	0.0%
070613	070613	301	0.0%	0.0%
070621	070621	7	0.0%	0.0%
070631	070631	111	0.0%	0.0%
070632	070632	10	0.0%	0.0%
070641	070641	1613	0.2%	0.2%
070642	070642	206	0.0%	0.0%
070643	070643	45	0.0%	0.0%
070651	070651	2	0.0%	0.0%
070661	070661	10	0.0%	0.0%
070671	070671	6	0.0%	0.0%
070681	070681	6	0.0%	0.0%
070700	070700	10	0.0%	0.0%
070711	070711	8481	1.2%	1.3%
070712	070712	1036	0.1%	0.1%
070713	070713	42	0.0%	0.0%
070721	070721	1266	0.2%	0.2%
070731	070731	1238	0.2%	0.2%
070732	070732	122	0.0%	0.0%
070733	070733	150	0.0%	0.0%
070741	070741	401	0.1%	0.1%

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070742	070742	45	0.0%	0.0%
079900	079900	45	0.0%	0.0%
080111	080111	181	0.0%	0.0%
080121	080121	24	0.0%	0.0%
080131	080131	26	0.0%	0.0%
080132	080132	3	0.0%	0.0%
080200	080200	5	0.0%	0.0%
080300	080300	16	0.0%	0.0%
080311	080311	115	0.0%	0.0%
080321	080321	161	0.0%	0.0%
080500	080500	1	0.0%	0.0%
080511	080511	3	0.0%	0.0%
080612	080612	7	0.0%	0.0%
080621	080621	4	0.0%	0.0%
080700	080700	13	0.0%	0.0%
080711	080711	1139	0.2%	0.2%
080712	080712	212	0.0%	0.0%
080713	080713	33	0.0%	0.0%
080721	080721	508	0.1%	0.1%
080722	080722	83	0.0%	0.0%
080731	080731	93	0.0%	0.0%
080741	080741	58	0.0%	0.0%
080751	080751	5	0.0%	0.0%
080761	080761	1	0.0%	0.0%
080771	080771	1	0.0%	0.0%
080782	080782	2	0.0%	0.0%
080900	080900	2	0.0%	0.0%
080911	080911	16	0.0%	0.0%
081100	081100	5	0.0%	0.0%
081111	081111	16	0.0%	0.0%
081121	081121	2	0.0%	0.0%
081211	081211	1	0.0%	0.0%
081221	081221	12	0.0%	0.0%
089900	089900	14	0.0%	0.0%
090100	090100	17	0.0%	0.0%
090111	090111	347	0.0%	0.0%
090121	090121	22	0.0%	0.0%
090211	090211	49	0.0%	0.0%
090400	090400	18	0.0%	0.0%
090411	090411	1848	0.3%	0.2%
090412	090412	421	0.1%	0.1%
090413	090413	104	0.0%	0.0%
090421	090421	8	0.0%	0.0%
090431	090431	30	0.0%	0.0%
090441	090441	1314	0.2%	0.2%
090442	090442	274	0.0%	0.0%
090611	090611	10	0.0%	0.0%
090612	090612	12	0.0%	0.0%
090700	090700	3	0.0%	0.0%
090711	090711	32	0.0%	0.0%
090721	090721	3	0.0%	0.0%
090811	090811	30	0.0%	0.0%
090812	090812	1	0.0%	0.0%
099900	099900	21	0.0%	0.0%
100100	100100	48	0.0%	0.0%
100111	100111	249	0.0%	0.0%
100121	100121	149	0.0%	0.0%
100131	100131	140	0.0%	0.0%
100132	100132	23	0.0%	0.0%
100141	100141	2	0.0%	0.0%
100142	100142	2	0.0%	0.0%
100151	100151	74	0.0%	0.0%
100152	100152	8	0.0%	0.0%
100161	100161	57	0.0%	0.0%
100171	100171	201	0.0%	0.0%
100172	100172	35	0.0%	0.0%
100173	100173	5	0.0%	0.0%
100174	100174	2	0.0%	0.0%
100181	100181	3	0.0%	0.0%
100191	100191	82	0.0%	0.0%
100192	100192	11	0.0%	0.0%
11 100	110100	51	0.0%	0.0%
110111	110111	6271	0.9%	0.9%
110121	110121	496	0.1%	0.1%
110122	110122	43	0.0%	0.0%
110131	110131	971	0.1%	0.1%
110132	110132	72	0.0%	0.0%
110141	110141	114	0.0%	0.0%
110200	110200	9	0.0%	0.0%
110211	110211	832	0.1%	0.1%
110212	110212	155	0.0%	0.0%
110213	110213	37	0.0%	0.0%
110221	110221	21	0.0%	0.0%
110231	110231	317	0.0%	0.0%
110232	110232	76	0.0%	0.0%
110241	110241	983	0.1%	0.1%
110242	110242	84	0.0%	0.0%
110251	110251	21	0.0%	0.0%
110261	110261	12	0.0%	0.0%
110271	110271	1	0.0%	0.0%
110300	110300	6	0.0%	0.0%
110311	110311	568	0.1%	0.1%
110312	110312	50	0.0%	0.0%
110313	110313	11	0.0%	0.0%
110321	110321	1	0.0%	0.0%
110400	110400	6	0.0%	0.0%
110500	110500	2	0.0%	0.0%
119900	119900	27	0.0%	0.0%
120111	120111	2	0.0%	0.0%
120211	120211	10	0.0%	0.0%
120411	120411	272	0.0%	0.1%
120412	120412	83	0.0%	0.0%
120413	120413	26	0.0%	0.0%
120414	120414	23	0.0%	0.0%
120415	120415	11	0.0%	0.0%
120421	120421	6	0.0%	0.0%
120422	120422	2	0.0%	0.0%
120511	120511	2	0.0%	0.0%
120521	120521	4	0.0%	0.0%
120531	120531	2	0.0%	0.0%
120532	120532	1	0.0%	0.0%
129900	129900	1	0.0%	0.0%
130100	130100	3	0.0%	0.0%
130300	130300	22	0.0%	0.0%
130400	130400	2	0.0%	0.0%
131000	131000	5	0.0%	0.0%
131100	131100	21	0.0%	0.0%
131200	131200	6	0.0%	0.0%
131300	131300	1	0.0%	0.0%
139900	139900	5	0.0%	0.0%
140111	140111	10	0.0%	0.0%
140221	140221	8	0.0%	0.0%
140300	140300	2	0.0%	0.0%
140411	140411	2	0.0%	0.0%
140500	140500	1	0.0%	0.0%
141211	141211	7	0.0%	0.0%
141214	141214	2	0.0%	0.0%
141300	141300	1	0.0%	0.0%
141911	141911	7	0.0%	0.0%
142011	142011	2	0.0%	0.0%
142200	142200	1	0.0%	0.0%
142600	142600	3	0.0%	0.0%
142611	142611	7	0.0%	0.0%
150111	150111	4	0.0%	0.0%
150200	150200	25	0.0%	0.0%
150300	150300	3	0.0%	0.0%
150311	150311	5	0.0%	0.0%
150321	150321	34	0.0%	0.0%
150331	150331	80	0.0%	0.0%
150332	150332	20	0.0%	0.0%
150333	150333	2	0.0%	0.0%
150341	150341	14	0.0%	0.0%
150411	150411	19	0.0%	0.0%
150412	150412	17	0.0%	0.0%
150421	150421	21	0.0%	0.0%
150431	150431	355	0.0%	0.0%
150500	150500	1	0.0%	0.0%
150600	150600	20	0.0%	0.0%
150601	150601	63	0.0%	0.0%
150611	150611	252	0.0%	0.0%
150612	150612	27	0.0%	0.0%
150631	150631	1	0.0%	0.0%
150700	150700	2	0.0%	0.0%
150800	150800	30	0.0%	0.0%
150811	150811	34	0.0%	0.0%
150821	150821	13	0.0%	0.0%
159900	159900	14	0.0%	0.0%
160100	160100	5	0.0%	0.0%
160111	160111	25	0.0%	0.0%
160121	160121	566	0.1%	0.1%
160122	160122	417	0.1%	0.1%
160123	160123	354	0.0%	0.1%
160124	160124	56	0.0%	0.0%
160125	160125	102	0.0%	0.0%
160300	160300	1	0.0%	0.0%
160311	160311	1	0.0%	0.0%
160312	160312	3	0.0%	0.0%
160313	160313	4	0.0%	0.0%
160321	160321	69	0.0%	0.0%
160322	160322	45	0.0%	0.0%
160323	160323	22	0.0%	0.0%
160324	160324	15	0.0%	0.0%
160325	160325	2	0.0%	0.0%
160331	160331	162	0.0%	0.0%
160332	160332	101	0.0%	0.0%
160333	160333	36	0.0%	0.0%
160334	160334	8	0.0%	0.0%
160336	160336	6	0.0%	0.0%
160341	160341	10	0.0%	0.0%
160342	160342	7	0.0%	0.0%
160343	160343	2	0.0%	0.0%
160400	160400	3	0.0%	0.0%
160411	160411	1	0.0%	0.0%
160421	160421	94	0.0%	0.0%
160422	160422	64	0.0%	0.0%
160423	160423	32	0.0%	0.0%
160424	160424	13	0.0%	0.0%
160425	160425	8	0.0%	0.0%
160427	160427	1	0.0%	0.0%
160431	160431	1	0.0%	0.0%
160432	160432	1	0.0%	0.0%
160433	160433	3	0.0%	0.0%
160441	160441	5	0.0%	0.0%
160442	160442	4	0.0%	0.0%
160451	160451	2	0.0%	0.0%
160452	160452	1	0.0%	0.0%
160503	160503	1	0.0%	0.0%
160512	160512	4	0.0%	0.0%
160513	160513	1389	0.2%	0.2%
160514	160514	1040	0.1%	0.1%
160515	160515	517	0.1%	0.1%
160516	160516	197	0.0%	0.0%
160517	160517	54	0.0%	0.0%
160518	160518	5	0.0%	0.0%
160519	160519	4	0.0%	0.0%
160521	160521	1	0.0%	0.0%
160522	160522	2	0.0%	0.0%
160531	160531	1	0.0%	0.0%
160532	160532	1	0.0%	0.0%
160541	160541	20	0.0%	0.0%
160600	160600	3	0.0%	0.0%
160621	160621	9	0.0%	0.0%
160622	160622	9	0.0%	0.0%
160623	160623	6	0.0%	0.0%
160624	160624	3	0.0%	0.0%
160631	160631	10	0.0%	0.0%
160632	160632	4	0.0%	0.0%
160633	160633	1	0.0%	0.0%
160700	160700	4	0.0%	0.0%
160900	160900	11	0.0%	0.0%
160902	160902	10	0.0%	0.0%
160903	160903	4718	0.7%	0.7%
160904	160904	4032	0.6%	0.5%
160905	160905	2071	0.3%	0.2%
160906	160906	1007	0.1%	0.1%
160907	160907	416	0.1%	0.0%
160908	160908	7	0.0%	0.0%
160909	160909	23	0.0%	0.0%
160910	160910	11	0.0%	0.0%
160913	160913	162	0.0%	0.0%
160914	160914	104	0.0%	0.0%
160915	160915	69	0.0%	0.0%
160916	160916	24	0.0%	0.0%
160917	160917	6	0.0%	0.0%
160920	160920	1057	0.1%	0.1%
160921	160921	843	0.1%	0.1%
160922	160922	353	0.0%	0.0%
160923	160923	138	0.0%	0.0%

160924	160924	110	0.0%	0.0%
160925	160925	2	0.0%	0.0%
160926	160926	4	0.0%	0.0%
160927	160927	2	0.0%	0.0%
160931	160931	5	0.0%	0.0%
160932	160932	19	0.0%	0.0%
160933	160933	12284	1.7%	1.7%
160934	160934	9264	1.3%	1.2%
160935	160935	3603	0.5%	0.4%
160936	160936	1301	0.2%	0.1%
160937	160937	619	0.1%	0.1%
160938	160938	10	0.0%	0.0%
160939	160939	14	0.0%	0.0%
160941	160941	14	0.0%	0.0%
160942	160942	10	0.0%	0.0%
161000	161000	6	0.0%	0.0%
161111	161111	66	0.0%	0.0%
161112	161112	48	0.0%	0.0%
161113	161113	128	0.0%	0.0%
161114	161114	35	0.0%	0.0%
161115	161115	6	0.0%	0.0%
161116	161116	7	0.0%	0.0%
161117	161117	1	0.0%	0.0%
161211	161211	1	0.0%	0.0%
161311	161311	224	0.0%	0.0%
161312	161312	186	0.0%	0.0%
161313	161313	73	0.0%	0.0%
161314	161314	11	0.0%	0.0%
161315	161315	10	0.0%	0.0%
161341	161341	3	0.0%	0.0%
161342	161342	1	0.0%	0.0%
161343	161343	4	0.0%	0.0%
161351	161351	12	0.0%	0.0%
161352	161352	9	0.0%	0.0%
161353	161353	1	0.0%	0.0%
161361	161361	1	0.0%	0.0%
161362	161362	1	0.0%	0.0%
161363	161363	2	0.0%	0.0%
169900	169900	24	0.0%	0.0%
170100	170100	5	0.0%	0.0%
170111	170111	18	0.0%	0.0%
170112	170112	2	0.0%	0.0%
170121	170121	1	0.0%	0.0%
170131	170131	1	0.0%	0.0%
170132	170132	1	0.0%	0.0%
170211	170211	385	0.1%	0.0%
170221	170221	1	0.0%	0.0%
170300	170300	2	0.0%	0.0%
170311	170311	29	0.0%	0.0%
170312	170312	4	0.0%	0.0%
170321	170321	19	0.0%	0.0%
170322	170322	1	0.0%	0.0%
170411	170411	1	0.0%	0.0%
170421	170421	10	0.0%	0.0%
170431	170431	16	0.0%	0.0%
170500	170500	2	0.0%	0.0%
170511	170511	348	0.0%	0.0%
170521	170521	84	0.0%	0.0%
170531	170531	11	0.0%	0.0%
170541	170541	4	0.0%	0.0%
170551	170551	18	0.0%	0.0%
170561	170561	80	0.0%	0.0%
170581	170581	1	0.0%	0.0%
170591	170591	4	0.0%	0.0%
170592	170592	51	0.0%	0.0%
170593	170593	9	0.0%	0.0%
170600	170600	2	0.0%	0.0%
170611	170611	1	0.0%	0.0%
170621	170621	16	0.0%	0.0%
170631	170631	47	0.0%	0.0%
170641	170641	36	0.0%	0.0%
170651	170651	4	0.0%	0.0%
179900	179900	2	0.0%	0.0%
181100	181100	11	0.0%	0.0%
181400	181400	1	0.0%	0.0%
181600	181600	1	0.0%	0.0%
181800	181800	5	0.0%	0.0%
181801	181801	19	0.0%	0.0%
189900	189900	16	0.0%	0.0%
190100	190100	32	0.0%	0.0%
190200	190200	2	0.0%	0.0%
190400	190400	3	0.0%	0.0%
190500	190500	16	0.0%	0.0%
190600	190600	17	0.0%	0.0%
190700	190700	6	0.0%	0.0%
190900	190900	7	0.0%	0.0%
199900	199900	5	0.0%	0.0%
200100	200100	2	0.0%	0.0%
200111	200111	7	0.0%	0.0%
200112	200112	16	0.0%	0.0%
200113	200113	2554	0.4%	0.4%
200114	200114	359	0.1%	0.1%
200115	200115	74	0.0%	0.0%
200116	200116	45	0.0%	0.0%
200117	200117	1909	0.3%	0.3%
200118	200118	14	0.0%	0.0%
200121	200121	4	0.0%	0.0%
200122	200122	1235	0.2%	0.2%
200123	200123	123	0.0%	0.0%
200124	200124	94	0.0%	0.0%
200125	200125	93	0.0%	0.0%
200126	200126	7	0.0%	0.0%
200131	200131	1	0.0%	0.0%
200133	200133	797	0.1%	0.1%
200134	200134	127	0.0%	0.0%
200135	200135	49	0.0%	0.0%
200136	200136	7	0.0%	0.0%
200137	200137	12	0.0%	0.0%
200141	200141	1223	0.2%	0.2%
200142	200142	16	0.0%	0.0%
200151	200151	155	0.0%	0.0%
200152	200152	15	0.0%	0.0%
200153	200153	4	0.0%	0.0%
200154	200154	7	0.0%	0.0%
200161	200161	71	0.0%	0.0%
200162	200162	3	0.0%	0.0%
200171	200171	1372	0.2%	0.2%
200172	200172	181	0.0%	0.0%
200173	200173	821	0.1%	0.1%
200181	200181	1	0.0%	0.0%
200182	200182	24	0.0%	0.0%
200183	200183	2459	0.3%	0.4%
200184	200184	538	0.1%	0.1%
200185	200185	253	0.0%	0.0%
200186	200186	34	0.0%	0.0%
200187	200187	172	0.0%	0.0%
200188	200188	410	0.1%	0.1%
200191	200191	183	0.0%	0.0%
200192	200192	23	0.0%	0.0%
200193	200193	175	0.0%	0.0%
200194	200194	29	0.0%	0.0%
200200	200200	36	0.0%	0.0%
200211	200211	345	0.0%	0.1%
200221	200221	107	0.0%	0.0%
200231	200231	33	0.0%	0.0%
200251	200251	140	0.0%	0.0%
200252	200252	139	0.0%	0.0%
200261	200261	72	0.0%	0.0%
200262	200262	4	0.0%	0.0%
200300	200300	2	0.0%	0.0%
200311	200311	43	0.0%	0.0%
200312	200312	1	0.0%	0.0%
200331	200331	29	0.0%	0.0%
200341	200341	3	0.0%	0.0%
200351	200351	2	0.0%	0.0%
200371	200371	88	0.0%	0.0%
200381	200381	1	0.0%	0.0%
200391	200391	13	0.0%	0.0%
200400	200400	1	0.0%	0.0%
200411	200411	294	0.0%	0.0%
200412	200412	40	0.0%	0.0%
200413	200413	29	0.0%	0.0%
200421	200421	57	0.0%	0.0%
200431	200431	54	0.0%	0.0%
200441	200441	20	0.0%	0.0%
200451	[illegible]	3	0.0%	0.0%
200471	200471	11	0.0%	0.0%
200481	200481	40	0.0%	0.0%
200511	200511	441	0.1%	0.1%
200512	200512	31	0.0%	0.0%
200513	200513	10	0.0%	0.0%
200521	200521	47	0.0%	0.0%
200531	200531	17	0.0%	0.0%
200551	200551	2	0.0%	0.0%
200631	200631	5	0.0%	0.0%
200643	200643	1	0.0%	0.0%
200661	200661	4	0.0%	0.0%
209900	209900	11	0.0%	0.0%
210100	210100	20	0.0%	0.0%
210102	210102	4	0.0%	0.0%
210103	210103	1649	0.2%	0.3%
210104	210104	226	0.0%	0.0%
210105	210105	53	0.0%	0.0%
210106	210106	45	0.0%	0.0%
210107	210107	450	0.1%	0.1%
210108	210108	130	0.0%	0.0%
210109	210109	271	0.0%	0.0%
210110	210110	26	0.0%	0.0%
210111	210111	132	0.0%	0.0%
210112	210112	17	0.0%	0.0%
210113	210113	282	0.0%	0.0%
210114	210114	48	0.0%	0.0%
210115	210115	411	0.1%	0.1%
210116	210116	119	0.0%	0.0%
210117	210117	36	0.0%	0.0%
210118	210118	14	0.0%	0.0%
210119	210119	141	0.0%	0.0%
210120	210120	8	0.0%	0.0%
210121	210121	231	0.0%	0.0%
210122	210122	80	0.0%	0.0%
210123	210123	45	0.0%	0.0%
210124	210124	18	0.0%	0.0%
210126	210126	31	0.0%	0.0%
210130	210130	4	0.0%	0.0%
210131	210131	2	0.0%	0.0%
210140	210140	8	0.0%	0.0%
210141	210141	2	0.0%	0.0%
210150	210150	13	0.0%	0.0%
210151	210151	3	0.0%	0.0%
220100	220100	11	0.0%	0.0%
220111	220111	280	0.0%	0.0%
220121	220121	851	0.1%	0.1%
220131	220131	165	0.0%	0.0%
230100	230100	108	0.0%	0.0%
230101	230101	1	0.0%	0.0%
230103	230103	4	0.0%	0.0%
230104	230104	10	0.0%	0.0%
230106	230106	2055	0.3%	0.3%
230107	230107	22848	3.2%	3.3%
230108	230108	2839	0.4%	0.4%
230109	230109	1659	0.2%	0.2%
230110	230110	20828	2.9%	3.0%
230111	230111	3425	0.5%	0.5%
230112	230112	1154	0.2%	0.2%
230113	230113	15958	2.2%	2.3%
230114	230114	3004	0.4%	0.4%
230115	230115	764	0.1%	0.1%
230116	230116	11960	1.7%	1.7%
230117	230117	3661	0.5%	0.5%
230118	230118	1038	0.1%	0.2%
230119	230119	11	0.0%	0.0%
230120	230120	15	0.0%	0.0%
230121	230121	26	0.0%	0.0%
230122	230122	610	0.1%	0.1%
230123	230123	5	0.0%	0.0%
230124	230124	26	0.0%	0.0%
230125	230125	184	0.0%	0.0%
230126	230126	297	0.0%	0.0%
230127	230127	489	0.1%	0.1%
230128	230128	85	0.0%	0.0%
230129	230129	12	0.0%	0.0%
230130	230130	256	0.0%	0.0%
230131	230131	394	0.1%	0.1%
230132	230132	60	0.0%	0.0%
230133	230133	131	0.0%	0.0%
230134	230134	4	0.0%	0.0%
230135	230135	48	0.0%	0.0%
230136	230136	37	0.0%	0.0%

230137	230137	75	0.0%	0.0%
230138	230138	241	0.0%	0.0%
230139	230139	555	0.1%	0.0%
230140	230140	36	0.0%	0.0%
230141	230141	40	0.0%	0.0%
230142	230142	33	0.0%	0.0%
230143	230143	22	0.0%	0.0%
230144	230144	14	0.0%	0.0%
230145	230145	15	0.0%	0.0%
230146	230146	49	0.0%	0.0%
230147	230147	23	0.0%	0.0%
230148	230148	8	0.0%	0.0%
230149	230149	15	0.0%	0.0%
230150	230150	11	0.0%	0.0%
230151	230151	35	0.0%	0.0%
230152	230152	6	0.0%	0.0%
230153	230153	92	0.0%	0.0%
230154	230154	450	0.1%	0.1%
230155	230155	30	0.0%	0.0%
230156	230156	142	0.0%	0.0%
230200	230200	1	0.0%	0.0%
230211	230211	112	0.0%	0.0%
230300	230300	42	0.0%	0.0%
230311	230311	292	0.0%	0.0%
230321	230321	15	0.0%	0.0%
230400	230400	45	0.0%	0.0%
230401	230401	2694	0.4%	0.4%
230402	230402	1070	0.1%	0.1%
230403	230403	272	0.0%	0.0%
230404	230404	127	0.0%	0.0%
230405	230405	25	0.0%	0.0%
230406	230406	1	0.0%	0.0%
230407	230407	3	0.0%	0.0%
230408	230408	73	0.0%	0.0%
230409	230409	132	0.0%	0.0%
230410	230410	133	0.0%	0.0%
230411	230411	363	0.1%	0.0%
230412	230412	41	0.0%	0.0%
230413	230413	1	0.0%	0.0%
230414	230414	140	0.0%	0.0%
230415	230415	8	0.0%	0.0%
230500	230500	11	0.0%	0.0%
230511	230511	877	0.1%	0.1%
230512	230512	205	0.0%	0.0%
230513	230513	233	0.0%	0.0%
230521	230521	41	0.0%	0.0%
230611	230611	22	0.0%	0.0%
230700	230700	36	0.0%	0.0%
230711	230711	2847	0.4%	0.4%
230721	230721	45	0.0%	0.0%
230731	230731	20	0.0%	0.0%
230751	230751	6	0.0%	0.0%
230761	230761	21	0.0%	0.0%
230771	230771	27	0.0%	0.0%
230781	230781	2	0.0%	0.0%
230800	230800	71	0.0%	0.0%
230811	230811	1389	0.2%	0.2%
230821	230821	272	0.0%	0.0%
230831	230831	46	0.0%	0.0%
230851	230851	6	0.0%	0.0%
230861	230861	6	0.0%	0.0%
230871	230871	26	0.0%	0.0%
230900	230900	14	0.0%	0.0%
231000	231000	14	0.0%	0.0%
231011	231011	1497	0.2%	0.2%
231021	231021	2386	0.3%	0.3%
231022	231022	600	0.1%	0.1%
231023	231023	62	0.0%	0.0%
231031	231031	47	0.0%	0.0%
231100	231100	1	0.0%	0.0%
231111	231111	25	0.0%	0.0%
231211	231211	2253	0.3%	0.4%
231212	231212	641	0.1%	0.1%
231213	231213	178	0.0%	0.0%
231214	231214	72	0.0%	0.0%
231215	231215	48	0.0%	0.0%
231216	231216	550	0.1%	0.1%
231311	231311	922	0.1%	0.1%
231312	231312	583	0.1%	0.1%
231313	231313	471	0.1%	0.1%
231314	231314	382	0.1%	0.0%
239900	239900	67	0.0%	0.0%
240100	240100	3	0.0%	0.0%
240111	240111	28	0.0%	0.0%
240121	240121	12	0.0%	0.0%
240131	240131	542	0.1%	0.1%
240141	240141	171	0.0%	0.0%
250100	250100	1	0.0%	0.0%
250111	250111	235	0.0%	0.0%
250311	250311	238	0.0%	0.0%
250400	250400	2	0.0%	0.0%
250500	250500	3	0.0%	0.0%
260100	260100	30	0.0%	0.0%
260111	260111	15	0.0%	0.0%
260121	260121	3219	0.5%	0.6%
260122	260122	44	0.0%	0.0%
260131	260131	21184	3.0%	2.9%
260132	260132	1610	0.2%	0.2%
260141	260141	2093	0.3%	0.2%
260142	260142	1453	0.2%	0.2%
260151	260151	94	0.0%	0.0%
260161	260161	41	0.0%	0.0%
260171	260171	4	0.0%	0.0%
260181	260181	67	0.0%	0.0%
260211	260211	10	0.0%	0.0%
260311	260311	124	0.0%	0.0%
260411	260411	60	0.0%	0.0%
260511	260511	45	0.0%	0.0%
260600	260600	7	0.0%	0.0%
260611	260611	483	0.1%	0.1%
260621	260621	623	0.1%	0.1%
260622	260622	18	0.0%	0.0%
260631	260631	117	0.0%	0.0%
260700	260700	2	0.0%	0.0%
260711	260711	210	0.0%	0.0%
260721	260721	19	0.0%	0.0%
260731	260731	2	0.0%	0.0%
260741	260741	33	0.0%	0.0%
260751	260751	1811	0.3%	0.2%
260752	260752	75	0.0%	0.0%
260761	260761	7	0.0%	0.0%
269900	269900	126	0.0%	0.0%
270100	270100	130	0.0%	0.0%
270101	270101	15	0.0%	0.0%
270103	270103	23	0.0%	0.0%
270104	270104	13	0.0%	0.0%
270106	270106	5024	0.7%	0.9%
270107	270107	1914	0.3%	0.4%
270108	270108	31	0.0%	0.0%
270109	270109	59	0.0%	0.0%
270110	270110	588	0.1%	0.1%
270111	270111	165	0.0%	0.0%
270112	270112	208	0.0%	0.0%
270113	270113	18	0.0%	0.0%
270114	270114	2886	0.4%	0.4%
270300	270300	60	0.0%	0.0%
270400	270400	103	0.0%	0.0%
270401	270401	6881	1.0%	1.1%
270402	270402	1277	0.2%	0.2%
270403	270403	930	0.1%	0.1%
270404	270404	20128	2.8%	2.8%
270405	270405	13443	1.9%	1.8%
270406	270406	1036	0.1%	0.1%
270408	270408	15675	2.2%	2.1%
270409	270409	1244	0.2%	0.2%
270410	270410	1373	0.2%	0.2%
270411	270411	2095	0.3%	0.2%
270412	270412	585	0.1%	0.1%
270413	270413	98	0.0%	0.0%
270414	270414	2383	0.3%	0.3%
270415	270415	247	0.0%	0.0%
270416	270416	4320	0.6%	0.5%
270417	270417	72	0.0%	0.0%
270418	270418	93	0.0%	0.0%
270419	270419	1184	0.2%	0.1%
270420	270420	1835	0.3%	0.2%
270421	270421	1669	0.2%	0.2%
270422	270422	1049	0.1%	0.1%
270423	270423	896	0.1%	0.1%
270424	270424	355	0.0%	0.0%
270500	270500	1	0.0%	0.0%
270511	270511	179	0.0%	0.0%
270521	270521	16	0.0%	0.0%
270531	270531	274	0.0%	0.0%
270601	270601	3004	0.4%	0.5%
270602	270602	835	0.1%	0.1%
270603	270603	199	0.0%	0.0%
270604	270604	124	0.0%	0.0%
279900	279900	272	0.0%	0.1%
280100	280100	6	0.0%	0.0%
280111	280111	102	0.0%	0.0%
280112	280112	65	0.0%	0.0%
280113	280113	33	0.0%	0.0%
280114	280114	13	0.0%	0.0%
280300	280300	3	0.0%	0.0%
280311	280311	448	0.1%	0.1%
280312	280312	221	0.0%	0.0%
280313	280313	117	0.0%	0.0%
280314	280314	86	0.0%	0.0%
280400	280400	5	0.0%	0.0%
280411	280411	77	0.0%	0.0%
280412	280412	41	0.0%	0.0%
280413	280413	29	0.0%	0.0%
280414	280414	19	0.0%	0.0%
280421	280421	11	0.0%	0.0%
280422	280422	3	0.0%	0.0%
280423	280423	1	0.0%	0.0%
289900	289900	32	0.0%	0.0%
290100	290100	1	0.0%	0.0%
300100	300100	76	0.0%	0.0%
300111	300111	5176	0.7%	0.8%
300112	300112	34	0.0%	0.0%
300121	300121	165	0.0%	0.0%
300131	300131	28	0.0%	0.0%
300300	300300	2	0.0%	0.0%
300311	300311	25	0.0%	0.0%
300400	300400	14	0.0%	0.0%
300411	300411	833	0.1%	0.1%
300421	300421	98	0.0%	0.0%
300431	300431	181	0.0%	0.0%
300441	300441	3	0.0%	0.0%
300451	300451	3	0.0%	0.0%
300500	300500	3	0.0%	0.0%
300611	300611	146	0.0%	0.0%
300621	300621	968	0.1%	0.1%
300631	300631	43	0.0%	0.0%
300700	300700	7	0.0%	0.0%
300711	300711	15	0.0%	0.0%
300721	300721	27	0.0%	0.0%
309900	309900	9	0.0%	0.0%
310100	310100	1	0.0%	0.0%
310111	310111	7	0.0%	0.0%
310121	310121	4	0.0%	0.0%
310200	310200	5	0.0%	0.0%
310300	310300	2	0.0%	0.0%
320100	320100	40	0.0%	0.0%
320101	320101	1	0.0%	0.0%
320102	320102	1304	0.2%	0.2%
320103	320103	1405	0.2%	0.2%
320104	320104	1463	0.2%	0.2%
320105	320105	91	0.0%	0.0%
320106	320106	1610	0.2%	0.3%
320107	320107	200	0.0%	0.0%
320121	320121	111	0.0%	0.0%
320200	320200	101	0.0%	0.0%
320201	320201	368	0.1%	0.1%
320211	320211	733	0.1%	0.1%
320221	320221	573	0.1%	0.1%
330100	330100	47	0.0%	0.0%
330111	330111	4784	0.7%	0.7%
330121	330121	328	0.0%	0.1%
330131	330131	244	0.0%	0.0%
330141	330141	263	0.0%	0.0%
330151	330151	692	0.1%	0.1%
340100	340100	18	0.0%	0.0%
340111	340111	3	0.0%	0.0%
340112	340112	15	0.0%	0.0%
340113	340113	21654	3.0%	3.2%

340114	340114	14104	2.0%	2.0%	421100	421100	2	0.0%	0.0%
340115	340115	7848	1.1%	1.1%	421411	421411	1	0.0%	C.0%
340116	340116	6206	0.9%	0.8%	421600	421600	6	0.0%	0.0%
340121	340121	106	0.0%	0.0%	421611	421611	203	0.0%	0.0%
340122	340122	156	0.0%	0.0%	429900	429900	7	0.0%	0.0%
340129	340129	17	0.0%	0.0%	430100	430100	5	0.0%	0.0%
340131	340131	3	0.0%	0.0%	430111	430111	230	0.0%	0.0%
340132	340132	9	0.0%	0.0%	430121	430121	65	0.0%	0.0%
340133	340133	7560	1.1%	1.1%	430211	430211	4	0.0%	0.0%
340134	340134	3828	0.5%	0.6%	430221	430221	2	0.0%	0.0%
340135	340135	1298	0.2%	0.2%	430311	430311	8	0.0%	0.0%
340136	340136	699	0.1%	0.1%	439900	439900	1	0.0%	0.0%
340137	340137	189	0.0%	0.0%	440711	440711	13	0.0%	0.0%
340138	340138	71	0.0%	0.0%	450100	450100	114	0.0%	0.0%
340141	340141	107	0.0%	0.0%	450111	450111	1746	0.2%	0.3%
340151	340151	2306	0.3%	0.3%	450121	450121	30	0.0%	0.0%
340152	340152	5614	0.8%	0.8%	450131	450131	95	0.0%	0.0%
340161	340161	211	0.0%	0.0%	450141	450141	98	0.0%	0.0%
340171	340171	98	0.0%	0.0%	450211	450211	203	0.0%	0.0%
340181	340181	286	0.0%	0.0%	450221	450221	28	0.0%	0.0%
340191	340191	138	0.0%	0.0%	450231	450231	2	0.0%	0.0%
350100	350100	13	0.0%	0.0%	450241	450241	2	0.0%	0.0%
350111	350111	115	0.0%	0.0%	450311	450311	22	0.0%	0.0%
350121	350121	323	0.0%	0.0%	450400	450400	3	0.0%	0.0%
350131	350131	410	0.1%	0.1%	450511	450511	3	0.0%	0.0%
360100	360100	8	0.0%	0.0%	450600	450600	47	0.0%	0.0%
360111	360111	1894	0.3%	0.2%	450601	450601	5530	0.8%	0.8%
360121	360121	4863	0.7%	0.6%	450602	450602	1697	0.2%	0.2%
360131	360131	156	0.0%	0.0%	450603	450603	620	0.1%	0.1%
360141	360141	386	0.1%	0.1%	450606	450606	5	0.0%	0.0%
360151	360151	237	0.0%	0.0%	450607	450607	1	0.0%	0.0%
360161	360161	638	0.1%	0.1%	450608	450608	34	0.0%	0.0%
360171	360171	5964	0.8%	0.8%	450609	450609	1	0.0%	0.0%
360191	360191	191	0.0%	0.0%	450610	450610	110	0.0%	0.0%
360192	360192	40	0.0%	0.0%	450611	450611	103	0.0%	0.0%
370100	370100	43	0.0%	0.0%	450612	450612	30	0.0%	0.0%
370111	370111	626	0.1%	0.1%	450700	450700	36	0.0%	0.0%
370121	370121	56	0.0%	0.0%	450701	450701	27	0.0%	0.0%
370131	370131	126	0.0%	0.0%	450702	450702	169	0.0%	0.0%
380100	380100	20	0.0%	0.0%	450703	450703	47	0.0%	0.0%
380111	380111	219	0.0%	0.0%	450704	450704	5443	0.8%	0.8%
380121	380121	255	0.0%	0.0%	450705	450705	38	0.0%	0.0%
380131	380131	130	0.0%	0.0%	450706	450706	19	0.0%	0.0%
380151	380151	75	0.0%	0.0%	450707	450707	179	0.0%	0.0%
380200	380200	491	0.1%	0.1%	450708	450708	32	0.0%	0.0%
380201	380201	576	0.1%	0.1%	450709	450709	68	0.0%	0.0%
380202	380202	338	0.0%	0.0%	450710	450710	3	0.0%	0.0%
380203	380203	1665	0.2%	0.3%	450800	450800	224	0.0%	0.0%
380204	380204	1009	0.1%	0.1%	450801	450801	7	0.0%	0.0%
380205	380205	558	0.1%	0.1%	450804	450804	3	0.0%	0.0%
380206	380206	212	0.0%	0.0%	450805	450805	13	0.0%	0.0%
380207	380207	311	0.0%	0.0%	450807	450807	1881	0.3%	0.3%
380208	380208	7	0.0%	0.0%	450808	450808	646	0.1%	0.1%
380209	380209	99	0.0%	0.0%	450809	450809	734	0.1%	0.1%
380210	380210	21	0.0%	0.0%	450810	450810	12278	1.7%	1.7%
380211	380211	24	0.0%	0.0%	450811	450811	5025	0.7%	0.8%
380212	380212	589	0.1%	0.1%	450812	450812	5451	0.8%	0.8%
380213	380213	55	0.0%	0.0%	450813	450813	1025	0.1%	0.1%
380214	380214	617	0.1%	0.0%	450814	450814	1147	0.2%	0.1%
380215	380215	10	0.0%	0.0%	450815	450815	46	0.0%	0.0%
380216	380216	17	0.0%	0.0%	450816	450816	998	0.1%	0.1%
380217	380217	18	0.0%	0.0%	450817	450817	5	0.0%	0.0%
389900	389900	33	0.0%	0.0%	450818	450818	205	0.0%	0.0%
390200	390200	113	0.0%	0.0%	450819	450819	32	0.0%	0.0%
390400	390400	37	0.0%	0.0%	450820	450820	1	0.0%	0.0%
390600	390600	2	0.0%	0.0%	450821	450821	1	0.0%	0.0%
390611	390611	67	0.0%	0.0%	450823	450823	6	0.0%	0.0%
399900	399900	26	0.0%	0.0%	450824	450824	66	0.0%	0.0%
400100	400100	40	0.0%	0.0%	450825	450825	87	0.0%	0.0%
400111	400111	63	0.0%	0.0%	450826	450826	102	0.0%	0.0%
400121	400121	12407	1.7%	1.8%	450827	450827	14	0.0%	0.0%
400131	400131	99	0.0%	0.0%	450828	450828	25	0.0%	0.0%
400141	400141	1080	0.2%	0.2%	450829	450829	15	0.0%	0.0%
400200	400200	1	0.0%	0.0%	450830	450830	6	0.0%	0.0%
400211	400211	358	0.1%	0.0%	450831	450831	1	0.0%	0.0%
400411	400411	60	0.0%	0.0%	450832	450832	1	0.0%	0.0%
400500	400500	7	0.0%	0.0%	450833	450833	1	0.0%	0.0%
400511	400511	2148	0.3%	C.3%	450834	450834	1	0.0%	0.0%
400521	400521	11755	1.6%	1.5%	450835	450835	14930	2.1%	2.2%
400522	400522	1280	0.2%	0.1%	450836	450836	229	0.0%	0.0%
400531	400531	42	0.0%	0.0%	450837	450837	1095	0.2%	0.1%
400541	400541	32	0.0%	0.0%	450838	450838	303	0.0%	0.0%
400551	400551	187	0.0%	0.0%	450839	450839	32	0.0%	0.0%
400561	400561	30	0.0%	0.0%	450840	450840	929	0.1%	0.1%
400600	400600	6	0.0%	0.0%	450841	450841	148	0.0%	0.0%
400611	400611	5010	0.7%	0.7%	450842	450842	330	0.0%	0.1%
400621	400621	279	0.0%	0.0%	450843	450843	108	0.0%	0.0%
400631	400631	325	0.0%	C.0%	450844	450844	97	0.0%	0.0%
400632	400632	20	0.0%	0.0%	450845	450845	101	0.0%	0.0%
400700	400700	6	C.0%	0.0%	450846	450846	11	0.0%	0.0%
400711	400711	224	0.0%	0.0%	450847	450847	2	0.0%	0.0%
400800	400800	16	0.0%	0.0%	450848	450848	696	0.1%	0.1%
400811	400811	1128	0.2%	0.1%	450849	450849	39	0.0%	0.0%
400821	400821	4963	0.7%	0.6%	450850	450850	8	0.0%	0.0%
400822	400822	1008	0.1%	0.1%	450851	450851	10	0.0%	0.0%
400831	400831	28	0.0%	0.0%	450852	450852	380	0.1%	0.0%
400841	400841	30	0.0%	0.0%	450853	450853	30	0.0%	0.0%
400851	400851	3	0.0%	0.0%	450854	450854	101	0.0%	0.0%
400911	400911	39	0.0%	0.0%	450855	450855	10	0.0%	0.0%
401011	401011	66	C.0%	0.0%	450856	450856	501	0.1%	0.0%
409900	409900	85	0.0%	0.0%	450857	450857	34	0.0%	0.0%
410200	410200	5	0.0%	0.0%	450858	450858	16	0.0%	0.0%
410211	410211	1	0.0%	0.0%	450859	450859	4	0.0%	0.0%
410300	410300	2	0.0%	0.0%	450860	450860	33	0.0%	0.0%
419900	419900	85	0.0%	0.0%	450861	450861	24	0.0%	0.0%
420100	420100	9	0.0%	0.0%	450862	450862	38	0.0%	0.0%
420111	420111	3530	0.5%	C.6%	450863	450863	86	0.0%	0.0%
420112	420112	198	0.0%	0.0%	450864	450864	4	0.0%	0.0%
420113	420113	17	0.0%	0.0%	450865	450865	27	0.0%	0.0%
420200	420200	5	0.0%	0.0%	450866	450866	3	0.0%	0.0%
420311	420311	6	0.0%	0.0%	450867	450867	53	0.0%	0.0%
420600	420600	4	0.0%	0.0%	450868	450868	19	0.0%	0.0%
420700	420700	5	0.0%	0.0%	450869	450869	17	0.0%	0.0%
420711	420711	53	0.0%	0.0%	450911	450911	203	0.0%	0.0%
420721	420721	29	0.0%	C.0%	450921	450921	3	0.0%	0.0%
420731	420731	6	0.0%	0.0%	450931	450931	11	0.0%	0.0%
421000	421000	4	0.0%	0.0%	450951	450951	7	0.0%	0.0%
421011	421011	20	0.0%	0.0%	450952	450952	46	0.0%	0.0%
421021	421021	119	0.0%	0.0%	451000	451000	26	0.0%	0.0%

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451001	451001	3349	0.5%	0.5%
451002	451002	420	0.1%	0.1%
451003	451003	321	0.0%	0.0%
451004	451004	8833	1.2%	1.2%
451005	451005	20	0.0%	0.0%
451006	451006	141	0.0%	0.0%
451007	451007	29	0.0%	0.0%
451008	451008	69	0.0%	0.0%
451009	451009	1	0.0%	0.0%
451010	451010	853	0.1%	0.1%
451011	451011	36	0.0%	0.0%
451012	451012	5	0.0%	0.0%
451013	451013	74	0.0%	0.0%
451014	451014	668	0.1%	0.1%
451015	451015	86	0.0%	0.0%
451016	451016	122	0.0%	0.0%
451017	451017	1738	0.2%	0.2%
451018	451018	220	0.0%	0.0%
451019	451019	7	0.0%	0.0%
451020	451020	157	0.0%	0.0%
451023	451023	11	0.0%	0.0%
451024	451024	82	0.0%	0.0%
451025	451025	4	0.0%	0.0%
451026	451026	13	0.0%	0.0%
451027	451027	5	0.0%	0.0%
451028	451028	474	0.1%	0.1%
451029	451029	264	0.0%	0.0%
451030	451030	45	0.0%	0.0%
451031	451031	19	0.0%	0.0%
451032	451032	16	0.0%	0.0%
451033	451033	143	0.0%	0.0%
451100	451100	13	0.0%	0.0%
451111	451111	367	0.1%	0.0%
451121	451121	1823	0.3%	0.3%
451131	451131	285	0.0%	0.0%
451132	451132	3	0.0%	0.0%
451151	451151	8	0.0%	0.0%
451161	451161	76	0.0%	0.0%
451171	451171	32	0.0%	0.0%
451181	451181	8	0.0%	0.0%
451200	451200	5	0.0%	0.0%
451211	451211	56	0.0%	0.0%
451221	451221	6	0.0%	0.0%
451231	451231	57	0.0%	0.0%
459900	459900	23	0.0%	0.0%
460111	460111	34	0.0%	0.0%
460112	460112	23	0.0%	0.0%
460113	460113	8	0.0%	0.0%
460200	460200	3	0.0%	0.0%
460211	460211	158	0.0%	0.0%
460212	460212	59	0.0%	0.0%
460213	460213	8	0.0%	0.0%
460300	460300	1	0.0%	0.0%
460311	460311	27	0.0%	0.0%
460312	460312	5	0.0%	0.0%
460400	460400	9	0.0%	0.0%
460411	460411	643	0.1%	0.1%
460412	460412	125	0.0%	0.0%
460413	460413	35	0.0%	0.0%
460421	460421	6	0.0%	0.0%
460431	460431	36	0.0%	0.0%
460441	460441	156	0.0%	0.0%
460451	460451	34	0.0%	0.0%
460452	460452	5	0.0%	0.0%
460500	460500	2	0.0%	0.0%
460511	460511	8	0.0%	0.0%
460512	460512	4	0.0%	0.0%
469900	469900	11	0.0%	0.0%
470100	470100	6	0.0%	0.0%
470121	470121	9	0.0%	0.0%
470124	470124	6	0.0%	0.0%
470131	470131	6	0.0%	0.0%
470151	470151	7	0.0%	0.0%
470161	470161	3	0.0%	0.0%
470171	470171	13	0.0%	0.0%
470211	470211	38	0.0%	0.0%
470212	470212	13	0.0%	0.0%
470311	470311	18	0.0%	0.0%
470312	470312	2	0.0%	0.0%
470321	470321	28	0.0%	0.0%
470331	470331	10	0.0%	0.0%
470332	470332	6	0.0%	0.0%
470341	470341	2	0.0%	0.0%
470400	470400	4	0.0%	0.0%
470411	470411	5	0.0%	0.0%
470421	470421	4	0.0%	0.0%
470431	470431	2	0.0%	0.0%
470434	470434	1	0.0%	0.0%
470511	470511	380	0.1%	0.1%
470512	470512	54	0.0%	0.0%
470513	470513	6	0.0%	0.0%
470611	470611	315	0.0%	0.0%
470612	470612	23	0.0%	0.0%
470621	470621	1138	0.2%	0.2%
470622	470622	472	0.1%	0.1%
470623	470623	115	0.0%	0.0%
470624	470624	39	0.0%	0.0%
470625	470625	6	0.0%	0.0%
470631	470631	249	0.0%	0.0%
470632	470632	83	0.0%	0.0%
470633	470633	7	0.0%	0.0%
470641	470641	158	0.0%	0.0%
470642	470642	15	0.0%	0.0%
470651	470651	132	0.0%	0.0%
480100	480100	55	0.0%	0.0%
480111	480111	2426	0.3%	0.3%
480112	480112	480	0.1%	0.1%
480113	480113	182	0.0%	0.0%
480114	480114	27	0.0%	0.0%
480121	480121	526	0.1%	0.1%
480122	480122	88	0.0%	0.0%
480123	480123	26	0.0%	0.0%
480124	480124	5	0.0%	0.0%
480131	480131	129	0.0%	0.0%
480132	480132	20	0.0%	0.0%
480141	480141	38	0.0%	0.0%
480151	480151	58	0.0%	0.0%
480152	480152	34	0.0%	0.0%
480200	480200	12	0.0%	0.0%

480211	480211	361	0.1%	0.0%
480212	480212	112	0.0%	0.0%
480213	480213	7	0.0%	0.0%
480214	480214	22	0.0%	0.0%
480221	480221	961	0.1%	0.1%
480222	480222	182	0.0%	0.0%
480223	480223	56	0.0%	0.0%
480224	480224	11	0.0%	0.0%
480231	480231	29	0.0%	0.0%
480251	480251	5	0.0%	0.0%
480311	480311	4	0.0%	0.0%
480321	480321	7	0.0%	0.0%
480411	480411	2	0.0%	0.0%
480511	480511	835	0.1%	0.1%
480512	480512	168	0.0%	0.0%
480513	480513	34	0.0%	0.0%
480514	480514	19	0.0%	0.0%
480521	480521	357	0.0%	0.1%
480522	480522	91	0.0%	0.0%
480523	480523	35	0.0%	0.0%
480524	480524	25	0.0%	0.0%
480531	480531	27	0.0%	0.0%
480532	480532	10	0.0%	0.0%
480541	480541	1	0.0%	0.0%
480552	480552	1	0.0%	0.0%
480600	480600	6	0.0%	0.0%
480611	480611	68	0.0%	0.0%
480612	480612	2	0.0%	0.0%
480700	480700	2	0.0%	0.0%
480711	480711	1863	0.3%	0.3%
480712	480712	508	0.1%	0.1%
480713	480713	186	0.0%	0.0%
480714	480714	33	0.0%	0.0%
480721	480721	20	0.0%	0.0%
480731	480731	118	0.0%	0.0%
480732	480732	58	0.0%	0.0%
489900	489900	10	0.0%	0.0%
490111	490111	30	0.0%	0.0%
490112	490112	2	0.0%	0.0%
490121	490121	26	0.0%	0.0%
490122	490122	3	0.0%	0.0%
490123	490123	1	0.0%	0.0%
490131	490131	2	0.0%	0.0%
490212	490212	6	0.0%	0.0%
490213	490213	4	0.0%	0.0%
490214	490214	4	0.0%	0.0%
490331	490331	1	0.0%	0.0%
490341	490341	5	0.0%	0.0%
490411	490411	160	0.0%	0.0%
490412	490412	16	0.0%	0.0%
490421	490421	2	0.0%	0.0%
499900	499900	5	0.0%	0.0%
500100	500100	44	0.0%	0.0%
500111	500111	185	0.0%	0.0%
500200	500200	19	0.0%	0.0%
500212	500212	7	0.0%	0.0%
500213	500213	623	0.1%	0.1%
500214	500214	127	0.0%	0.0%
500215	500215	20	0.0%	0.0%
500216	500216	19	0.0%	0.0%
500221	500221	9	0.0%	0.0%
500231	500231	24	0.0%	0.0%
500241	500241	6	0.0%	0.0%
500251	500251	301	0.0%	0.0%
500252	500252	39	0.0%	0.0%
500253	500253	6	0.0%	0.0%
500254	500254	5	0.0%	0.0%
500261	500261	2	0.0%	0.0%
500262	500262	4	0.0%	0.0%
500263	500263	1047	0.1%	0.1%
500264	500264	586	0.1%	0.1%
500265	500265	58	0.0%	0.0%
500266	500266	93	0.0%	0.0%
500271	500271	75	0.0%	0.0%
500281	500281	3	0.0%	0.0%
500291	500291	140	0.0%	0.0%
500292	500292	6	0.0%	0.0%
500300	500300	17	0.0%	0.0%
500311	500311	514	0.1%	0.1%
500312	500312	225	0.0%	0.0%
500313	500313	111	0.0%	0.0%
500314	500314	63	0.0%	0.0%
500321	500321	23	0.0%	0.0%
500322	500322	29	0.0%	0.0%
500323	500323	30	0.0%	0.0%
500324	500324	19	0.0%	0.0%
500331	500331	39	0.0%	0.0%
500332	500332	32	0.0%	0.0%
500333	500333	28	0.0%	0.0%
500334	500334	28	0.0%	0.0%
500341	500341	55	0.0%	0.0%
500342	500342	41	0.0%	0.0%
500343	500343	18	0.0%	0.0%
500344	500344	17	0.0%	0.0%
500351	500351	87	0.0%	0.0%
500352	500352	27	0.0%	0.0%
500353	500353	23	0.0%	0.0%
500354	500354	10	0.0%	0.0%
500361	500361	53	0.0%	0.0%
500381	500381	530	0.1%	0.1%
500400	500400	34	0.0%	0.0%
500411	500411	68	0.0%	0.0%
500421	500421	2	0.0%	0.0%
500431	500431	3	0.0%	0.0%
500500	500500	14	0.0%	0.0%
500511	500511	2033	0.3%	0.3%
500512	500512	531	0.1%	0.1%
500513	500513	345	0.0%	0.1%
500514	500514	203	0.0%	0.0%
500521	500521	42	0.0%	0.0%
500531	500531	8	0.0%	0.0%
500541	500541	57	0.0%	0.0%
500551	500551	88	0.0%	0.0%
500561	500561	37	0.0%	0.0%
500600	500600	3	0.0%	0.0%
500611	500611	179	0.0%	0.0%
500612	500612	73	0.0%	0.0%
500621	500621	1339	0.2%	0.1%
500622	500622	315	0.0%	0.0%

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500623..........	500623	170	0.0%	0.0%
500631..........	500631	102	0.0%	0.0%
500632..........	500632	61	0.0%	0.0%
500700..........	500700	25	0.0%	0.0%
500701..........	500701	4	0.0%	0.0%
500702..........	500702	6	0.0%	0.0%
500703..........	500703	2470	0.3%	0.4%
500704..........	500704	5473	0.8%	0.8%
500705..........	500705	1494	0.2%	0.2%
500706..........	500706	541	0.1%	0.1%
500707..........	500707	310	0.0%	0.0%
500708..........	500708	264	0.0%	0.0%
500709..........	500709	404	0.1%	0.0%
500711..........	500711	16	0.0%	0.0%
500713..........	500713	2	0.0%	0.0%
500714..........	500714	2436	0.3%	0.3%
500715..........	500715	433	0.1%	0.1%
500716..........	500716	89	0.0%	0.0%
500717..........	500717	42	0.0%	0.0%
500718..........	500718	30	0.0%	0.0%
500719..........	500719	13	0.0%	0.0%
500720..........	500720	623	0.1%	0.1%
500721..........	500721	57	0.0%	0.0%
500722..........	500722	3	0.0%	0.0%
500723..........	500723	103	0.0%	0.0%
500724..........	500724	52	0.0%	0.0%
500725..........	500725	62	0.0%	0.0%
500726..........	500726	493	0.1%	0.1%
500727..........	500727	1	0.0%	0.0%
500731..........	500731	10	0.0%	0.0%
500732..........	500732	11	0.0%	0.0%
500800..........	500800	13	0.0%	0.0%
500811..........	500811	158	0.0%	0.0%
500900..........	500900	72	0.0%	0.0%
500901..........	500901	1	0.0%	0.0%
500903..........	500903	3	0.0%	0.0%
500904..........	500904	9	0.0%	0.0%
500905..........	500905	1	0.0%	0.0%
500906..........	500906	2	0.0%	0.0%
500907..........	500907	2041	0.3%	0.3%
500908..........	500908	384	0.1%	0.1%
500909..........	500909	3892	0.5%	0.5%
500910..........	500910	1591	0.2%	0.2%
500911..........	500911	1135	0.2%	0.1%
500913..........	500913	1	0.0%	0.0%
500916..........	500916	282	0.0%	0.0%
500917..........	500917	43	0.0%	0.0%
500918..........	500918	196	0.0%	0.0%
500919..........	500919	184	0.0%	0.0%
500920..........	500920	188	0.0%	0.0%
500921..........	500921	70	0.0%	0.0%
500922..........	500922	57	0.0%	0.0%
500923..........	500923	277	0.0%	0.0%
500924..........	500924	25	0.0%	0.0%
500925..........	500925	36	0.0%	0.0%
500926..........	500926	1042	0.1%	0.1%
500927..........	500927	135	0.0%	0.0%
500928..........	500928	24	0.0%	0.0%
500929..........	500929	10	0.0%	0.0%
500930..........	500930	103	0.0%	0.0%
500931..........	500931	223	0.0%	0.0%
500932..........	500932	25	0.0%	0.0%
500934..........	500934	147	0.0%	0.0%
500935..........	500935	13	0.0%	0.0%
500939..........	500939	2763	0.4%	0.4%
500940..........	500940	94	0.0%	0.0%
500941..........	500941	1286	0.2%	0.2%
500942..........	500942	96	0.0%	0.0%
500943..........	500943	786	0.1%	0.1%
500944..........	500944	124	0.0%	0.0%
500945..........	500945	672	0.1%	0.1%
500946..........	500946	71	0.0%	0.0%
500947..........	500947	3540	0.5%	0.4%
500948..........	500948	106	0.0%	0.0%
500949..........	500949	42	0.0%	0.0%
500950..........	500950	1	0.0%	0.0%
500951..........	500951	2	0.0%	0.0%
500952..........	500952	337	0.0%	0.1%
500953..........	500953	2	0.0%	0.0%
500954..........	500954	2	0.0%	0.0%
500955..........	500955	98	0.0%	0.0%
500956..........	500956	31	0.0%	0.0%
500957..........	500957	3	0.0%	0.0%
500958..........	500958	17	0.0%	0.0%
500959..........	500959	26	0.0%	0.0%
500960..........	500960	7	0.0%	0.0%
500961..........	500961	7	0.0%	0.0%
500962..........	500962	8	0.0%	0.0%
500963..........	500963	503	0.1%	0.1%
500964..........	500964	9	0.0%	0.0%
500965..........	500965	288	0.0%	0.0%
500966..........	500966	156	0.0%	0.0%
500967..........	500967	346	0.0%	0.0%
509900..........	509900	11	0.0%	0.0%
510101..........	510101	11	0.0%	0.0%
510102..........	510102	2	0.0%	0.0%
510103..........	510103	2	0.0%	0.0%
541001..........	541001	33	0.0%	0.0%
541101..........	541101	3	0.0%	0.0%
541201..........	541201	6	0.0%	0.0%
542011..........	542011	18	0.0%	0.0%
542021..........	542021	7	0.0%	0.0%
542031..........	542031	4	0.0%	0.0%
542041..........	542041	2	0.0%	0.0%
542051..........	542051	5	0.0%	0.0%
542101..........	542101	6	0.0%	0.0%
542301..........	542301	14	0.0%	0.0%
542401..........	542401	11	0.0%	0.0%
543001..........	543001	7	0.0%	0.0%
543101..........	543101	1	0.0%	0.0%
543109..........	543109	1	0.0%	0.0%
543201..........	543201	2	0.0%	0.0%
543301..........	543301	100	0.0%	0.0%
543309..........	543309	1	0.0%	0.0%
543401..........	543401	6	0.0%	0.0%
544001..........	544001	53	0.0%	0.0%
544501..........	544501	6	0.0%	0.0%
550001..........	550001	18	0.0%	0.0%
550101..........	550101	19	0.0%	.0.0%
550201..........	550201	4	0.0%	0.0%
550301..........	550301	36	0.0%	0.0%
550401..........	550401	11	0.0%	0.0%
551011..........	551011	20	0.0%	0.0%
551021..........	551021	8	0.0%	0.0%
551031..........	551031	14	0.0%	0.0%
551211..........	551211	2	0.0%	0.0%
551311..........	551311	4	0.0%	0.0%
551411..........	551411	2	0.0%	0.0%
552011..........	552011	15	0.0%	0.0%
552021..........	552021	4	0.0%	0.0%
552111..........	552111	2	0.0%	0.0%
552311..........	552311	3	0.0%	0.0%
553011..........	553011	11	0.0%	0.0%
553021..........	553021	2	0.0%	0.0%
553031..........	553031	2	0.0%	0.0%
553111..........	553111	1	0.0%	0.0%
554011..........	554011	33	0.0%	0.0%
554021..........	554021	3	0.0%	0.0%
554031..........	554031	1	0.0%	0.0%
554111..........	554111	11	0.0%	0.0%
554121..........	554121	4	0.0%	0.0%
554211..........	554211	6	0.0%	0.0%
554311..........	554311	62	0.0%	0.0%
554321..........	554321	1	0.0%	0.0%
554411..........	554411	2	0.0%	0.0%
555011..........	555011	10	0.0%	0.0%
555029..........	555029	1	0.0%	0.0%
556311..........	556311	3	0.0%	0.0%
557111..........	557111	9	0.0%	0.0%
557121..........	557121	1	0.0%	0.0%
558011..........	558011	17	0.0%	0.0%
558021..........	558021	5	0.0%	0.0%
558211..........	558211	9	0.0%	0.0%
558221..........	558221	3	0.0%	0.0%
559011..........	559011	2	0.0%	0.0%
562300..........	562300	40	0.0%	0.0%
562301..........	562301	258	0.0%	0.0%
562302..........	562302	197	0.0%	0.0%
562303..........	562303	143	0.0%	0.0%
562304..........	562304	100	0.0%	0.0%
562309..........	562309	7	0.0%	0.0%
562310..........	562310	4	0.0%	0.0%
562311..........	562311	97	0.0%	0.0%
562319..........	562319	3	0.0%	0.0%
562321..........	562321	10	0.0%	0.0%
562700..........	562700	54	0.0%	0.0%
562701..........	562701	481	0.1%	0.1%
562709..........	562709	2	0.0%	0.0%
562711..........	562711	11	0.0%	0.0%
562721..........	562721	53	0.0%	0.0%
563201..........	563201	105	0.0%	0.0%
563211..........	563211	31	0.0%	0.0%
564000..........	564000	9	0.0%	0.0%
564001..........	564001	221	0.0%	0.0%
564009..........	564009	1	0.0%	0.0%
564500..........	564500	12	0.0%	0.0%
564501..........	564501	128	0.0%	0.0%
569001..........	569001	392	0.1%	0.1%
569009..........	569009	1	0.0%	0.0%
569101..........	569101	275	0.0%	0.1%
569109..........	569109	2	0.0%	0.0%
569201..........	569201	14	0.0%	0.0%
569301..........	569301	59	0.0%	0.0%
569401..........	569401	23	0.0%	0.0%
600000..........	600000	1630	0.2%	0.2%
600001..........	600001	27	0.0%	0.0%
		------	-----	-----
TOTALS:		714647	100.0%	100.0%

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Appendix J

Classification of Secondary School Courses:

Subject and Program Areas

01. AGRIBUSINESS AND AGRICULTURAL PRODUCTION

01.01	AGRICULTURAL BUSINESS AND MANAGEMENT
01.02	AGRICULTURAL MECHANICS
01.03	AGRICULTURAL PRODUCTION
01.04	AGRICULTURAL PRODUCTS AND PROCESSING
01.05	AGRICULTURAL SERVICES AND SUPPLIES
01.06	HORTICULTURE
01.07	INTERNATIONAL AGRICULTURE
01.99	AGRIBUSINESS AND AGRICULTURAL PRODUCTION, OTHER

02. AGRICULTURAL SCIENCES

02.01	AGRICULTURAL SCIENCES, GENERAL
02.02	ANIMAL SCIENCES
02.03	FOOD SCIENCES
02.04	PLANT SCIENCES
02.05	SOIL SCIENCES
02.99	AGRICULTURAL SCIENCES, OTHER

03. RENEWABLE NATURAL RESOURCES

03.01	RENEWABLE NATURAL RESOURCES, GENERAL
03.02	CONSERVATION AND REGULATION
03.03	FISHING AND FISHERIES
03.04	FORESTRY PRODUCTION AND PROCESSING
03.05	FORESTRY AND RELATED SCIENCES
03.06	WILDLIFE MANAGEMENT
03.07	MARINE MANAGEMENT AND OCEANOGRAPHY
03.99	RENEWABLE NATURAL RESOURCES, OTHER

04. ARCHITECTURE AND ENVIRONMENTAL DESIGN

04.01	ARCHITECTURE AND ENVIRONMENTAL DESIGN, GENERAL
04.02	ARCHITECTURE
04.03	CITY, COMMUNITY, AND REGIONAL PLANNING
04.04	ENVIRONMENTAL DESIGN
04.05	INTERIOR DESIGN
04.06	LANDSCAPE ARCHITECTURE
04.07	URBAN DESIGN
04.99	ARCHITECTURE AND ENVIRONMENTAL DESIGN, OTHER

05. AREA AND ETHNIC STUDIES

05.01	AREA STUDIES
05.02	ETHNIC STUDIES
05.99	AREA AND ETHNIC STUDIES, OTHER

06. BUSINESS AND MANAGEMENT

06.01	BUSINESS AND MANAGEMENT, GENERAL
06.02	ACCOUNTING
06.03	BANKING AND FINANCE
06.04	BUSINESS ADMINISTRATION AND MANAGEMENT
06.05	BUSINESS ECONOMICS
06.06	HUMAN RESOURCES DEVELOPMENT
06.07	INSTITUTIONAL MANAGEMENT
06.08	INSURANCE AND RISK MANAGEMENT
06.09	INTERNATIONAL BUSINESS MANAGEMENT
06.10	INVESTMENTS AND SECURITIES
06.11	LABOR INDUSTRIAL RELATIONS
06.12	MANAGEMENT INFORMATION SYSTEMS
06.13	MANAGEMENT SCIENCE
06.14	MARKETING MANAGEMENT AND RESEARCH
06.15	ORGANIZATIONAL BEHAVIOR
06.16	PERSONNEL MANAGEMENT
06.17	REAL ESTATE
06.18	SMALL BUSINESS MANAGEMENT AND OWNERSHIP
06.19	TAXATION
06.20	TRADE AND INDUSTRIAL SUPERVISION AND MANAGEMENT
06.99	BUSINESS AND MANAGEMENT, OTHER

07. BUSINESS AND OFFICE

07.01	ACCOUNTING, BOOKKEEPING, AND RELATED PROGRAMS
07.02	BANKING AND RELATED FINANCIAL PROGRAMS
07.03	BUSINESS DATA PROCESSING AND RELATED PROGRAMS
07.04	OFFICE SUPERVISION AND MANAGEMENT
07.05	PERSONNEL AND TRAINING PROGRAMS
07.06	SECRETARIAL AND RELATED PROGRAMS
07.07	TYPING, GENERAL OFFICE, AND RELATED PROGRAMS
07.99	BUSINESS AND OFFICE, OTHER

08. MARKETING AND DISTRIBUTION

08.01	APPAREL AND ACCESSORIES MARKETING
08.02	BUSINESS AND PERSONAL SERVICES MARKETING
08.03	ENTREPRENEURSHIP
08.04	FINANCIAL SERVICES MARKETING
08.05	FLORISTRY, FARM AND GARDEN SUPPLIES MARKETING
08.06	FOOD MARKETING
08.07	GENERAL MARKETING
08.08	HOME AND OFFICE PRODUCTS MARKETING
08.09	HOSPITALITY AND RECREATION MARKETING
08.10	INSURANCE MARKETING
08.11	TRANSPORTATION AND TRAVEL MARKETING
08.12	VEHICLES AND PETROLEUM MARKETING

08.99	MARKETING AND DISTRIBUTION, OTHER

09. COMMUNICATIONS

09.01	COMMUNICATIONS, GENERAL
09.02	ADVERTISING
09.03	COMMUNICATIONS RESEARCH
09.04	JOURNALISM (MASS COMMUNICATIONS)
09.05	PUBLIC RELATIONS
09.06	RADIO/TELEVISION NEWS BROADCAST
09.07	RADIO/TELEVISION, GENERAL
09.08	SPECIAL LANGUAGES
09.99	COMMUNICATIONS, OTHER

10. COMMUNICATION TECHNOLOGIES

10.01	COMMUNICATION TECHNOLOGIES

11. COMPUTER AND INFORMATION SCIENCES

11.01	COMPUTER AND INFORMATION SCIENCES, GENERAL
11.02	COMPUTER PROGRAMMING
11.03	DATA PROCESSING
11.04	INFORMATION SCIENCES AND SYSTEMS
11.05	SYSTEMS ANALYSIS
11.99	COMPUTER AND INFORMATION SCIENCES, OTHER

12. CONSUMER, PERSONAL, AND MISCELLANEOUS SERVICES

12.01	DRYCLEANING AND LAUNDERING SERVICES
12.02	ENTERTAINMENT SERVICES
12.03	FUNERAL SERVICES
12.04	PERSONAL SERVICES
12.05	GENERAL SERVICES
12.99	CONSUMER, PERSONAL, AND MISCELLANEOUS SERVICES, OTHER

13. EDUCATION

13.01	EDUCATION, GENERAL
13.02	BILINGUAL/BICULTURAL EDUCATION
13.03	CURRICULUM AND INSTRUCTION
13.04	EDUCATION ADMINISTRATION
13.05	EDUCATIONAL MEDIA
13.06	EVALUATION AND RESEARCH
13.07	INTERNATIONAL AND COMPARATIVE EDUCATION
13.08	SCHOOL PSYCHOLOGY
13.09	SOCIAL FOUNDATIONS
13.10	SPECIAL EDUCATION
13.11	STUDENT COUNSELING AND PERSONNEL SERVICES

13.12	TEACHER EDUCATION, GENERAL PROGRAMS
13.13	TEACHER EDUCATION, SPECIFIC SUBJECT AREAS
13.14	TEACHING ENGLISH AS A SECOND LANGUAGE/FOREIGN LANGUAGE
13.99	EDUCATION, OTHER

14. ENGINEERING

14.01	ENGINEERING, GENERAL
14.02	AEROSPACE, AERONAUTICAL, AND ASTRONAUTICAL
14.03	AGRICULTURAL ENGINEERING
14.04	ARCHITECTURAL ENGINEERING
14.05	BIOENGINEERING AND BIOMEDICAL ENGINEERING
14.06	CERAMIC ENGINEERING
14.07	CHEMICAL ENGINEERING
14.08	CIVIL ENGINEERING
14.09	COMPUTER ENGINEERING
14.10	ELECTRICAL, ELECTRONICS, AND COMMUNICATIONS
14.11	ENGINEERING MECHANICS
14.12	ENGINEERING RELATED (formerly ENGINEERING PHYSICS)
14.13	ENGINEERING SCIENCE
14.14	ENVIRONMENTAL HEALTH ENGINEERING
14.15	GEOLOGICAL ENGINEERING
14.16	GEOPHYSICAL ENGINEERING
14.17	INDUSTRIAL ENGINEERING
14.18	MATERIALS ENGINEERING
14.19	MECHANICAL ENGINEERING
14.20	METALLURGICAL ENGINEERING
14.21	MINING AND MINERAL ENGINEERING
14.22	NAVAL ARCHITECTURE AND MARINE ENGINEERING
14.23	NUCLEAR ENGINEERING
14.24	OCEAN ENGINEERING
14.25	PETROLEUM ENGINEERING
14.26	SURVEYING AND MAPPING SCIENCES
14.27	SYSTEMS ENGINEERING
14.28	TEXTILE ENGINEERING
14.99	ENGINEERING, OTHER

15. ENGINEERING AND ENGINEERING-RELATED TECHNOLOGIES

15.01	ARCHITECTURAL TECHNOLOGIES
15.02	CIVIL TECHNOLOGIES
15.03	ELECTRICAL AND ELECTRONIC TECHNOLOGIES
15.04	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE
15.05	ENVIRONMENTAL CONTROL TECHNOLOGIES
15.06	INDUSTRIAL PRODUCTION TECHNOLOGIES
15.07	QUALITY CONTROL AND SAC TECHNIQUES
15.08	MECHANICAL AND RELATED TECHNOLOGIES
15.09	MINING AND PETROLEUM TECHNOLOGIES

15.99	ENGINEERING AND ENGINEERING-RELATED TECHNOLOGIES, OTHER

16. FOREIGN LANGUAGES

16.01	FOREIGN LANGUAGES, MULTIPLE EMPHASIS
16.02	AFRICAN (NON-SEMITIC) LANGUAGES
16.03	ASIATIC LANGUAGES
16.04	BALTO-SLAVIC LANGUAGES
16.05	GERMANIC LANGUAGES
16.06	GREEK
16.07	INDIC LANGUAGES
16.08	IRANIAN LANGUAGES
16.09	ITALIC LANGUAGES
16.10	NATIVE AMERICAN LANGUAGES
16.11	SEMITIC LANGUAGES
16.12	INDO-EUROPEAN LANGUAGES, OTHER
16.13	NON-ENGLISH LANGUAGES FOR NATIVE SPEAKERS
16.99	FOREIGN LANGUAGES, OTHER

17. ALLIED HEALTH

17.01	DENTAL SERVICES
17.02	DIAGNOSTIC AND TREATMENT SERVICES
17.03	MEDICAL LABORATORY TECHNOLOGIES
17.04	MENTAL HEALTH/HUMAN SERVICES
17.05	MISCELLANEOUS ALLIED HEALTH-SERVICES
17.06	NURSING-RELATED SERVICES
17.07	OPHTHALMIC SERVICES
17.08	REHABILITATION SERVICES
17.99	ALLIED HEALTH, OTHER

18. HEALTH SCIENCES

18.01	AUDIOLOGY AND SPEECH PATHOLOGY
18.02	BASIC CLINICAL HEALTH SCIENCES
18.03	CHIROPRACTIC
18.04	DENTISTRY
18.05	EMERGENCY/DISASTER SCIENCE
18.06	EPIDEMIOLOGY
18.07	HEALTH SCIENCES ADMINISTRATION
18.08	HEMATOLOGY
18.09	MEDICAL LABORATORY
18.10	MEDICINE
18.11	NURSING
18.12	OPTOMETRY
18.13	OSTEOPATHIC MEDICINE
18.14	PHARMACY
18.15	PODIATRY

18.16	POPULATION AND FAMILY PLANNING
18.17	PRE-DENTISTRY
18.18	PRE-MEDICINE
18.19	PRE-PHARMACY
18.20	PRE-VETERINARY
18.21	PROSECTORIAL SCIENCE
18.22	PUBLIC HEALTH LABORATORY SCIENCE
18.23	TOXICOLOGY (CLINICAL)
18.24	VETERINARY MEDICINE
18.99	HEALTH SCIENCES, OTHER

19. HOME ECONOMICS

19.01	HOME ECONOMICS, GENERAL
19.02	BUSINESS HOME ECONOMICS
19.03	FAMILY AND COMMUNITY SERVICES
19.04	FAMILY/CONSUMER RESOURCE MANAGEMENT
19.05	FOOD SCIENCES AND HUMAN NUTRITION
19.06	HUMAN ENVIRONMENT AND HOUSING
19.07	INDIVIDUAL AND FAMILY DEVELOPMENT
19.08	INTERNATIONAL/COMPARATIVE HOME ECONOMICS
19.09	TEXTILES AND CLOTHING
19.99	HOME ECONOMICS, OTHER

20. VOCATIONAL HOME ECONOMICS

20.01	CONSUMER AND HOMEMAKING HOME ECONOMICS
20.02	CHILD CARE AND GUIDANCE MANAGEMENT AND SERVICES
20.03	CLOTHING, APPAREL, AND TEXTILES MANAGEMENT, PRODUCTION, AND SERVICES
20.04	FOOD PRODUCTION, MANAGEMENT, AND SERVICES
20.05	HOME FURNISHING AND EQUIPMENT MANAGEMENT,
20.06	INSTITUTIONAL, HOME MANAGEMENT, AND SUPPORTING
20.99	VOCATIONAL HOME ECONOMICS, OTHER

21. INDUSTRIAL ARTS

21.01	INDUSTRIAL ARTS

22. LAW

22.01	LAW

23. LETTERS

23.01	ENGLISH, GENERAL
23.02	CLASSICS
23.03	COMPARATIVE LITERATURE
23.04	COMPOSITION

23.05	CREATIVE WRITING
23.06	LINGUISTICS (INCLUDES PHONETICS, SEMANTICS, AND
23.07	LITERATURE, AMERICAN
23.08	LITERATURE, ENGLISH
23.09	RHETORIC
23.10	SPEECH, DEBATE, AND FORENSICS
23.11	TECHNICAL AND BUSINESS WRITING
23.12	LANGUAGE ARTS, READING
23.13	LANGUAGE ARTS, BASIC SKILLS
23.99	LETTERS, OTHER

24. LIBERAL/GENERAL STUDIES

24.01	LIBERAL/GENERAL STUDIES

25. LIBRARY AND ARCHIVAL SCIENCES

25.01	LIBRARY AND ARCHIVAL SCIENCES, GENERAL
25.02	ARCHIVAL SCIENCE
25.03	LIBRARY ASSISTING
25.04	LIBRARY SCIENCE
25.05	MUSEOLOGY
25.99	LIBRARY AND ARCHIVAL SCIENCES, OTHER

26. LIFE SCIENCES

26.01	BIOLOGY, GENERAL
26.02	BIOCHEMISTRY AND BIOPHYSICS
26.03	BOTANY
26.04	CELL AND MOLECULAR BIOLOGY
26.05	MICROBIOLOGY
26.06	MISCELLANEOUS SPECIALIZED AREAS, LIFE SCIENCES
26.07	ZOOLOGY
26.99	LIFE SCIENCES, OTHER

27. MATHEMATICS

27.01	MATHEMATICS, GENERAL
27.02	ACTUARIAL SCIENCES
27.03	APPLIED MATHEMATICS
27.04	PURE MATHEMATICS
27.05	STATISTICS
27.06	BASIC SKILLS MATH
27.99	MATHEMATICS, OTHER

28. MILITARY SCIENCES

28.01	AEROSPACE SCIENCE (AIR FORCE)
28.02	COAST GUARD SCIENCE

	28.03	MILITARY SCIENCE (ARMY)
	28.04	NAVAL SCIENCE (NAVY, MARINES)
	28.99	MILITARY SCIENCES, OTHER
29.	MILITARY TECHNOLOGIES	
	29.01	MILITARY TECHNOLOGIES
30.	MULTI/INTERDISCIPLINARY STUDIES	
	30.01	BIOLOGICAL AND PHYSICAL SCIENCES
	30.02	CLINICAL PASTORAL CARE
	30.03	ENGINEERING AND OTHER DISCIPLINES
	30.04	HUMANITIES AND SOCIAL SCIENCES
	30.05	PEACE STUDIES
	30.06	SYSTEMS SCIENCE
	30.07	WOMEN'S STUDIES
	30.99	MULTIDISCIPLINARY STUDIES, OTHER
31.	PARKS AND RECREATION	
	31.01	PARKS AND RECREATION, GENERAL
	31.02	OUTDOOR RECREATION
	31.03	PARKS AND RECREATION MANAGEMENT
	31.04	WATER RESOURCES
	31.99	PARKS AND RECREATION, OTHER
32.	BASIC SKILLS	
	32.01	BASIC SKILLS, CAREERS & EMPLOYMENT.
	32.02	BASIC SKILLS, GENERAL
33.	CITIZENSHIP/CIVIC ACTIVITIES	
	33.01	CITIZENSHIP/CIVIC ACTIVITIES
34.	HEALTH RELATED ACTIVITIES	
	34.01	HEALTH RELATED ACTIVITIES
35.	INTERPERSONAL SKILLS	
	35.01	INTERPERSONAL SKILLS
36.	LEISURE AND RECREATIONAL ACTIVITIES	
	36.01	LEISURE AND RECREATIONAL ACTIVITIES

37. PERSONAL AWARENESS

37.01	PERSONAL AWARENESS

38. PHILOSOPHY AND RELIGION

38.01	PHILOSOPHY
38.02	RELIGION
38.99	PHILOSOPHY AND RELIGION, OTHER

39. THEOLOGY

39.01	BIBLICAL LANGUAGES
39.02	BIBLE STUDIES
39.03	MISSIONARY STUDIES
39.04	RELIGIOUS EDUCATION
39.05	RELIGIOUS MUSIC
39.06	THEOLOGICAL STUDIES
39.99	THEOLOGY, OTHER

40. PHYSICAL SCIENCES

40.01	PHYSICAL SCIENCES, GENERAL
40.02	ASTRONOMY
40.03	ASTROPHYSICS
40.04	ATMOSPHERIC SCIENCES AND METEOROLOGY
40.05	CHEMISTRY
40.06	GEOLOGICAL SCIENCES
40.07	MISCELLANEOUS PHYSICAL SCIENCES
40.08	PHYSICS
40.09	PLANETARY SCIENCE
40.10	AEROSPACE SCIENCE
40.99	PHYSICAL SCIENCES, OTHER

41. SCIENCE TECHNOLOGIES

41.01	BIOLOGICAL TECHNOLOGIES
41.02	NUCLEAR TECHNOLOGIES
41.03	PHYSICAL SCIENCE TECHNOLOGIES
41.99	SCIENCE TECHNOLOGIES, OTHER

42. PSYCHOLOGY

42.01	PSYCHOLOGY, GENERAL
42.02	CLINICAL PSYCHOLOGY
42.03	COGNITIVE PSYCHOLOGY
42.04	COMMUNITY PSYCHOLOGY
42.05	COMPARATIVE PSYCHOLOGY
42.06	COUNSELING PSYCHOLOGY

42.07	DEVELOPMENTAL PSYCHOLOGY
42.08	EXPERIMENTAL PSYCHOLOGY
42.09	INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY
42.10	PERSONALITY PSYCHOLOGY
42.11	PHYSIOLOGICAL PSYCHOLOGY
42.12	PSYCHOLINGUISTICS
42.13	PSYCHOMETRICS
42.14	PSYCHOPHARMACOLOGY
42.15	QUANTITATIVE PSYCHOLOGY
42.16	SOCIAL PSYCHOLOGY
42.99	PSYCHOLOGY, OTHER

43. PROTECTIVE SERVICES

43.01	CRIMINAL JUSTICE
43.02	FIRE PROTECTION
43.03	SECURITY SERVICES
43.99	PROTECTIVE SERVICES, OTHER

44. PUBLIC AFFAIRS

44.01	PUBLIC AFFAIRS, GENERAL
44.02	COMMUNITY SERVICES
44.03	INTERNATIONAL PUBLIC SERVICE
44.04	PUBLIC ADMINISTRATION
44.05	PUBLIC POLICY STUDIES
44.06	PUBLIC WORKS
44.07	SOCIAL WORK
44.99	PUBLIC AFFAIRS, OTHER

45. SOCIAL SCIENCES

45.01	SOCIAL SCIENCES, GENERAL
45.02	ANTHROPOLOGY
45.03	ARCHAEOLOGY
45.04	CRIMINOLOGY
45.05	DEMOGRAPHY
45.06	ECONOMICS
45.07	GEOGRAPHY
45.08	HISTORY
45.09	INTERNATIONAL RELATIONS
45.10	POLITICAL SCIENCE AND GOVERNMENT
45.11	SOCIOLOGY
45.12	URBAN STUDIES
45.99	SOCIAL SCIENCES, OTHER

46. CONSTRUCTION TRADES

46.01	BRICKMASONRY, STONEMASONRY, AND TILE SETTING
46.02	CARPENTRY
46.03	ELECTRICAL AND POWER TRANSMISSION INSTALLATION
46.04	MISCELLANEOUS CONSTRUCTION TRADES
46.05	PLUMBING, PIPEFITTING, AND STEAMFITTING
46.99	CONSTRUCTION TRADES, OTHER

47. MECHANICS AND REPAIRERS

47.01	ELECTRICAL AND ELECTRONICS EQUIPMENT REPAIR
47.02	HEATING, AIR CONDITIONING, AND REFRIGERATION
47.03	INDUSTRIAL EQUIPMENT MAINTENANCE AND REPAIR
47.04	MISCELLANEOUS MECHANICS AND REPAIRERS
47.05	STATIONARY ENERGY SOURCES
47.06	VEHICLE AND MOBILE EQUIPMENT MECHANICS AND
47.99	MECHANICS AND REPAIRERS, OTHER

48. PRECISION PRODUCTION

48.01	DRAFTING
48.02	GRAPHIC AND PRINTING COMMUNICATIONS
48.03	LEATHERWORKING AND UPHOLSTERING
48.04	PRECISION FOOD PRODUCTION
48.05	PRECISION METAL WORK
48.06	PRECISION WORK, ASSORTED MATERIALS
48.07	WOODWORKING
48.99	PRECISION PRODUCTION, OTHER

49. TRANSPORTATION AND MATERIAL MOVING

49.01	AIR TRANSPORTATION
49.02	VEHICLE AND EQUIPMENT OPERATION
49.03	WATER TRANSPORTATION
49.04	TRANSPORTATION, GENERAL
49.99	TRANSPORTATION AND MATERIAL MOVING, OTHER

50. VISUAL AND PERMORMING ARTS

50.01	VISUAL AND PERFORMING ARTS, GENERAL
50.02	CRAFTS
50.03	DANCE
50.04	DESIGN
50.05	DRAMATIC ARTS
50.06	FILM ARTS
50.07	FINE ARTS
50.08	GRAPHIC ARTS TECHNOLOGY
50.09	MUSIC

50.99	VISUAL AND PERFORMING ARTS, OTHER
51.	INTERNSHIPS
54.	ACADEMIC LIFE SKILLS/FUNCTIONAL CURRICULUM
54.1	FUNCTIONAL MATH
54.2	FUNCTIONAL ENGLISH
54.3	FUNCTIONAL LIFE SKILLS
55.	VOCATIONAL LIFE SKILLS/FUNCTIONAL CURRICULUM
55.0	CAREER PREPARATION/EXPLORATION
55.1	AGRICULTURE
55.2	BUSINESS AND OFFICE
55.3	HEALTH OCCUPATIONS
55.4	HOME ECONOMICS
55.5	INDUSTRIAL ARTS
55.6	SERVICE OCCUPATIONS
55.7	PRECISION PRODUCTION
55.8	TRADES AND INDUSTRIAL CONSTRUCTION
55.9	MECHANICS AND REPAIRERS
56.	SUBJECT AREA SERVICES

Appendix K

Classification of Secondary School Courses, in Code Order

010100	Agricultural Business and Management, Other
010111	Agribusiness, Introduction
010121	Agricultural Business Operation
010131	Farm and Ranch Management
010141	State and Community Agriculture
010151	Agricultural Mathematics
010161	Agricultural Microprocessing
010171	Agriculture Cooperatives
010172	Agricultural Cooperative Education II
010181	Agriculture, Independent Study
010182	SOEP - Supervised Occupational
010200	Agricultural Mechanics, Other
010211	Agricultural Mechanics, General
010212	Agricultural Mechanics 2
010213	Agricultural Mechanics 3
010214	Agricultural Mechanics 4
010221	Welding, Agricultural
010231	Power and Machinery, Agricultural
010241	Farm Construction
010251	Electricity and Electronics, Agricultural
010261	Soil and Water Mechanical Practices
010271	Surveying, Agricultural
010300	Agricultural Production, Other
010311	Agricultural Production, General
010312	Agriculture Technology 1
010313	Agriculture Technology 2
010321	Animal Production
010331	Crop Production
010400	Agricultural Products and Processing, Other
010411	Agricultural Products and Processing I
010412	Agricultural Products and Processing II
010421	Agricultural Products and Processing -
010500	Agricultural Services and Supplies, Other
010511	Agricultural Supplies Marketing
010521	Animal Grooming
010600	Horticulture, Other
010611	Horticulture
010621	Floriculture
010631	Landscaping
010632	Landscaping, Advanced
010641	Greenhouse Management
010651	Nursery Operations and Management
010661	Horticultural Mechanics I
010662	Horticultural Mechanics II
010671	Turf Management
010681	Fruit and Vegetable Production
010700	International Agriculture, Other
019900	Agribusiness and Agricultural Production, Other
020100	Agricultural Sciences, Other General

020111	Agricultural Sciences, General
020121	Agricultural Occupations 1
020122	Agricultural Occupations 2
020123	Agricultural Occupations 3
020124	Agricultural Occupations 4
020200	Animal Sciences, Other
020211	Animal Sciences 1
020212	Animal Sciences 2
020221	Livestock 9
020222	Livestock 10
020231	Poultry
020241	Dairy Production
020251	Nutrition and Feeds
020261	Horse Production
020262	Horseshoeing/Farrier Training
020271	Small Animal Production 1
020272	Small Animal Production 2
020281	Fish Production
020300	Food Sciences, Other
020400	Plant Sciences, Other
020411	Agronomy
020421	Ornamental Horticulture 1
020422	Ornamental Horticulture 2
020423	Ornamental Horticulture 3
020500	Soil Sciences, Other
020511	Soil Sciences, General
020521	Fertilizers and Chemicals
029900	Agricultural Sciences, Other
030100	Renewable Natural Resources, Other General
030200	Conservation and Regulation, Other
030211	Conservation and Regulation
030212	Environmental Management 1
030213	Environmental Management 2
030221	Environmental Management - Cooperative
030300	Fishing and Fisheries, Other
030311	Waterman Occupations
030400	Forestry Production and Processing, Other
030500	Forestry and Related Sciences, Other
030511	Forestry Science 1
030512	Forestry Science 2
030521	Forestry Occupations - Work Experience
030600	Wildlife Management, Other
030611	Wildlife Management
030621	Rural Recreation
030711	Marine Management/Oceanography 1
030712	Marine Management/Oceanography 2
039900	Renewable Natural Resources, Other
040100	Architecture and Environmental Design, Other
040200	Architecture, Other

040211	Architecture, Introduction
040212	Architecture, Advanced
040221	Architectural Theory
040300	City, Community, and Regional Planning, Other
040400	Environmental Design, Other
040500	Interior Design, Other
040511	Interior Design
040600	Landscape Architecture, Other
040700	Urban Design, Other
049900	Architecture and Environmental Design, Other
050100	Area Studies, Other
050101	Area Studies
050102	American Studies, Basic
050103	American Studies, General
050104	America's People and Problems
050105	American Studies, Honors
050106	New England Studies
050107	Old South
050108	American West
050109	Southwest United States
050110	Anglo America
050111	North America and Current Events
050112	North and South America
050113	Latin America
050114	World Studies 1
050115	World Studies 2
050116	World Studies, Honors
050117	Comparative World Cultures
050118	European Culture Studies, Basic
050119	European Culture Studies, General
050120	European Culture Studies, Honors
050121	Developing Nations
050122	African Area Studies
050123	Africa and South America
050124	Asian and African Cultural Studies, Basic
050125	Asian and African Cultural Studies, General
050126	Asian and African Cultural Studies, Honors
050127	Asian Studies
050128	History of China
050129	Asia, Africa and Mideast
050130	Africa and Middle East
050131	Middle Eastern Studies
050132	Middle East, War for Survival
050133	U S S R
050134	Soviet Union and China
050135	Soviet Union and Afro American Developing Nations
050136	History of Russia
050137	Neglected World
050138	Global Education

050139	Pacific Rim Nations
050140	Canadian Area Studies
050200	Ethnic Studies, Other
050211	Minorities in America
050221	Ethnic and Family Heritage
050231	Afro American Studies
050241	Economics of Afro Americans
050251	Indians of North America
050261	Jewish Historical Significance
050271	Mexican American Heritage
050281	Hawaiian
050291	Hawaiian Culture Studies, Modern
059900	Area and Ethnic Studies, Other
060100	Business and Management, Other General
060111	Business Introduction
060121	Business Law
060131	Business, Independent Study
060141	Business Education, Cooperative
060200	Accounting, Other
060211	Accounting/Business Management Careers -
060300	Banking and Finance, Other
060311	Financial Careers
060321	Real Estate Finance
060331	Consumer Lending
060400	Business Administration and Management, Other
060411	Business Organization and Management
060500	Business Economics, Other
060511	Business Economics
060600	Human Resources Development, Other
060700	Institutional Management, Other
060711	Hotel and Motel Management
060712	Hotel and Motel Training
060800	Insurance and Risk Management, Other
060811	Insurance Careers
060900	International Business Management, Other
061000	Investments and Securities, Other
061011	Investments and Taxation
061100	Labor Industrial Relations, Other
061200	Management Information Systems, Other
061300	Management Science, Other
061400	Marketing Management and Research, Other
061411	Marketing Management and Decision Making
061500	Organizational Behavior, Other
061600	Personnel Management, Other
061700	Real Estate, Other
061711	Real Estate Marketing
061800	Small Business Management and Ownership, Other
061811	Small Business Management
061900	Taxation, Other

062000	Trade and Industrial Supervision and Management, Other
069900	Business and Management, Other
070100	Accounting, Bookkeeping, and Related Programs, Other
070111	Bookkeeping 1
070112	Bookkeeping 2
070121	Accounting 1
070122	Accounting 2
070131	Accounting, College
070141	Bookkeeping and Accounting 1
070142	Bookkeeping and Accounting 2
070151	Recordkeeping 1
070152	Recordkeeping 2
070153	Personal Recordkeeping
070161	Office Machines
070162	Office Machines, Vocational
070171	Business Mathematics 1
070172	Business Mathematics 2
070200	Banking and Related Financial Programs, Other
070201	Banking & Financial Careers
070211	Bank Teller
070221	Financial Mathematics
070231	Bank Proof Operator
070241	Bank Data Entry Occupations
070251	Banking and Financial Careers - Cooperative
070300	Business Data Processing and Related Programs, Other
070311	Computers In Business
070321	Business Data Processing 1
070322	Business Data Processing 2
070331	Business Computer Programming 1
070332	Business Computer Programming 2
070341	Key Punch Operator
070351	Data Entry Operator 1
070352	Data Entry Operator 2
070361	Keyboarding
070371	Peripheral Computer Operator
070400	Office Supervision and Management, Other
070411	Business English 1
070412	Business English 2
070413	Business English 3
070414	Business English 4
070500	Personnel and Training Programs, Other
070600	Secretarial and Related Programs, Other
070611	Shorthand 1
070612	Shorthand 2
070613	Speed Writing
070621	Transcription
070631	Secretarial Administration 1
070632	Secretarial Administration 2
070641	Word Processing 1

070642	Word Processing 2
070643	Word Processing 3
070651	Reprographics
070661	Legal Office Procedures
070662	Court Reporter
070671	Medical Office Procedures
070681	Legal/Medical Office Procedures
070700	Typing, General Office, and Related Programs,Other
070711	Typewriting 1
070712	Typewriting 2
070713	Typewriting 3
070721	Typewriting, Personal
070731	Office Procedures 1
070732	Office Procedures 2
070733	Simulated Office
070741	Office Education 1, Cooperative
070742	Office Education 2, Cooperative
079900	Business and Office, Other
080100	Apparel and Accessories Marketing, Other
080111	Fashion Merchandising
080121	Fashion Design and Illustration
080131	Fashion Merchandising - Cooperative
080132	Fashion Merchandising - Cooperative
080200	Business and Personal Services Marketing, Other
080300	Entrepreneurship, Other
080311	Starting Your Own Business
080321	Junior Achievement
080400	Financial Services Marketing, Other
080500	Floristry, Farm and Garden Supplies Marketing, Other
080511	Floral Sales
080600	Food Marketing, Other
080611	Food Marketing/Distribution - Overview
080612	Grocery Management
080621	Food Marketing - Cooperative Education 1
080622	Food Marketing - Cooperative Education 2
080700	General Marketing, Other
080711	Distributive Education 1
080712	Distributive Education 2
080713	Distributive Education 3
080721	Distributive Education 1, Cooperative
080722	Distributive Education 2, Cooperative
080731	Salesmanship
080741	Retail Learning Laboratory
080751	Cashier Checker Training
080761	Warehousing Industrial and Wholesale Material
080771	Distributive Education, Independent Study
080781	Telephone Service Representative
080782	Telephone Directory Assistant
080800	Home and Office Products Marketing, Other

080811	Computer Sales Representative
080900	Hospitality and Recreation Marketing, Other
080911	Orientation to Hospitality Careers
080921	Hospitality Sales 1
080922	Hospitality Sales 2
081000	Insurance Marketing, Other
081100	Transportation and Travel Marketing, Other
081111	Tourism Services
081121	Entertainment Park/Tourism - Cooperative
081200	Vehicles and Petroleum Marketing, Other
081211	Auto Parts Merchandising
081221	Automotive Professional Training
089900	Marketing and Distribution, Other
090100	Communications, Other General
090111	Mass Media
090121	Intercultural Communications
090200	Advertising, Other
090211	Advertising
090300	Communications Research, Other
090400	Journalism (Mass Communications), Other
090411	Journalism 1
090412	Journalism 2
090413	Journalism 3
090421	Journalism Investigations
090431	Literary Magazine
090441	Yearbook Production 1
090442	Yearbook Production 2
090500	Public Relations, Other
090600	Radio/Television News Broadcast, Other
090611	Broadcast Journalism
090612	Careers in Radio/Television Broadcasting
090700	Radio/Television, Other General
090711	Broadcasting, Introduction
090721	Television and Taste
090811	Sign Language 1
090812	Sign Language 2
090821	Braille Communications
090831	Cryptography
099900	Communications, Other
100100	Communication Technologies, Other
100111	World of Communications
100121	Communications Media Production
100131	Photography, Commercial
100132	Photography, Advanced Commercial
100141	Broadcast Management 1
100142	Broadcast Management 2
100143	Broadcasting Practicum
100151	Film Making and Production 1
100152	Film Making and Production 2

100161	Radio Production
100171	Television Production 1
100172	Television Production 2
100173	Television Production 3
100174	Television Production 4
100181	Cable Television
100191	Radio/Television Production 1
100192	Radio/Television Production 2
110100	Computer and Information Sciences, Other General
110111	Computer Appreciation
110121	Computer Mathematics 1
110122	Computer Mathematics 2
110131	Computer Applications
110132	Computer Applications, Independent Study
110141	Computer Science, Advanced Placement
110151	Artificial Intelligence
110200	Computer Programming, Other
110211	Computer Programming 1
110212	Computer Programming 2
110213	Computer Programming 3
110221	FORTRAN, Introduction
110231	PASCAL, Introduction
110232	Advanced PASCAL
110241	BASIC, Introduction
110242	Advanced BASIC
110251	COBOL, Introduction
110252	Advanced COBOL
110261	LOGO, Introduction
110271	RPG Programming, Introduction
110300	Data Processing, Other
110311	Data Processing, Introduction
110312	Data Processing, Intermediate
110313	Data Processing, Advanced
110321	Computer Programming - Cooperative Education
110400	Information Sciences and Systems, Other
110500	Systems Analysis, Other
119900	Computer and Information Sciences, Other
120100	Drycleaning and Laundering Services, Other
120111	Dry Cleaning 1
120112	Dry Cleaning 2
120200	Entertainment Services, Other
120211	Sports Officiating
120300	Funeral Services, Other
120400	Personal Services, Other
120411	Cosmetology
120412	Cosmetology 2
120413	Cosmetology 3
120414	Cosmetology - Cooperative Education 2
120415	Cosmetology - Cooperative Education 2

120421	Barbering 1
120422	Barbering 2
120423	Barbering 3
120431	Personal Services Occupations
120511	General Services Occupations 1
120512	General Services Occupations 2
120513	General Services Occupations 3
120514	General Services Occupations 4
120521	Building & Grounds Maintenance
120522	Building & Grounds Maintenance
120523	Building & Grounds Maintenance
120531	Industrial Maintenance/Mechanics 1
120532	Industrial Maintenance/Mechanics 2
129900	Consumer, Personal, and Miscellaneous Services, Other
130100	Education, Other General
130200	Bilingual/Bicultural Education, Other
130300	Curriculum and Instruction, Other
130400	Education Administration, Other
130500	Educational Media, Other
130600	Evaluation and Research, Other
130700	International and Comparative Education, Other
130800	School Psychology, Other
130900	Social Foundations, Other
131000	Special Education, Other
131100	Student Counseling and Personnel Services, Other
131200	Teacher Education, General Programs, Other
131300	Teacher Education, Specific Subject Areas, Other
131400	Teaching English as a Second Language/Foreign
139900	Education, Other
140100	Engineering, Other General
140111	Orientation to Engineering
140200	Aerospace, Aeronautical, and Astronautical
140211	Aerospace Materials
140221	Aerospace Engineering Design
140300	Agricultural Engineering, Other
140400	Architectural Engineering, Other
140411	Strength of Materials - Architectural
140500	Bioengineering and Biomedical Engineering, Other
140600	Ceramic Engineering, Other
140700	Chemical Engineering, Other
140800	Civil Engineering, Other
140900	Computer Engineering, Other
141000	Electrical, Electronics, and Communications
141100	Engineering Mechanics, Other
141200	Engineering Related, Other
141211	Instrumentation Physics 1
141212	Instrumentation Physics 2
141213	Instrumentation Physics 3
141214	Instrumentation Physics 4 /Advanced Placement

141300	Engineering Science, Other
141400	Environmental Health Engineering, Other
141500	Geological Engineering, Other
141600	Geophysical Engineering, Other
141700	Industrial Engineering, Other
141800	Materials, Engineering, Other
141900	Mechanical Engineering, Other
141911	Strength of Materials - Mechanical Technology
142000	Metallurgical Engineering, Other
142011	Metallurgy/Powder Metal Basics
142100	Mining and Mineral Engineering, Other
142200	Naval Architecture and Marine Engineering, Other
142300	Nuclear Engineering, Other
142400	Ocean Engineering, Other
142500	Petroleum Engineering, Other
142600	Surveying and Mapping Sciences, Other
142611	Cartography
142700	Systems Engineering, Other
142800	Textile Engineering, Other
149900	Engineering, Other
150100	Architectural Technologies, Other
150111	Structural Engineering Technician
150200	Civil Technologies, Other
150211	Surveying
150221	Civil Engineering Technician
150300	Electrical and Electronic Technologies, Other
150311	Audio Electronics
150321	Electrical Technology
150331	Electronic Technology 1
150332	Electronic Technology 2
150333	Electronics Fabrication
150341	Electrical/Electronics Engineering Technician
150400	Electromechanical Instrumentation and Maintenance
150411	Electromechanical Technology 1
150412	Electromechanical Technology 2
150421	Instrumentation Technology
150431	Computer-Assisted Design/Drafting (CAD)
150500	Environmental Control Technologies, Other
150511	Environmental Control Technologies
150600	Industrial Production Technologies, Other
150601	Industrial Research & Development
150611	Industrial Production Technology 1
150612	Industrial Production Technology 2
150621	Chemical Manufacturing Technology
150631	Optics Technology
150700	Quality Control and Safety Technologies, Other
150711	Quality Control Technology
150800	Mechanical and Related Technologies, Other
150811	Automotive Design & Technology

150821	Mechanical Engineering Technology
150900	Mining and Petroleum Technologies, Other
150911	Mining Technology
150921	Petroleum Technology
159900	Engineering and Engineering-Related Technologies, Other
160100	Foreign Languages, Multiple Emphasis, Other
160111	Foreign Language, Exploratory
160121	English as a Second Language 1
160122	English as a Second Language 2
160123	English as a Second Language 3
160124	English as a Second Language, Skills Lab
160125	Transitional English
160200	African (Non-Semitic) Languages, Other
160211	Swahili 1
160212	Swahili 2
160221	Amharic 1 (Ethiopian)
160222	Amharic 2 (Ethiopian)
160300	Asiatic Languages, Other
160311	Cantonese 1
160312	Cantonese 2
160313	Cantonese 3
160314	Cantonese 4
160321	Mandarin 1
160322	Mandarin 2
160323	Mandarin 3
160324	Mandarin 4
160325	Mandarin 5
160331	Japanese 1
160332	Japanese 2
160333	Japanese 3
160334	Japanese 4
160335	Japanese 5
160336	Foreign Language Contract, Japanese
160341	Hawaiian 1
160342	Hawaiian 2
160343	Hawaiian 3
160344	Hawaiian 4
160345	Hawaiian Language and Culture
160351	Korean 1
160352	Korean 2
160353	Korean 3
160354	Korean 4
160355	Korean 5
160400	Balto-Slavic Languages, Other
160411	Ukrainian 1
160421	Russian 1
160422	Russian 2
160423	Russian 3
160424	Russian 4

160425	Russian 5
160426	Russian 6
160427	Foreign Language Contract, Russian
160431	Czech 1
160432	Czech 2
160433	Czech 3
160441	Polish 1
160442	Polish 2
160443	Polish 3
160444	Polish 4
160451	Finnish 1
160452	Finnish 2
160453	Finnish 3
160454	Finnish 4
160500	Germanic Languages, Other
160501	Dutch 1
160502	Dutch 2
160503	Dutch 3
160511	German 7
160512	German 8
160513	German 1
160514	German 2
160515	German 3
160516	German 4
160517	German, Advanced Placement
160518	German Field-Based Experience
160519	Foreign Language Contract, German
160521	Norwegian 1
160522	Norwegian 2
160531	Swedish 1
160532	Swedish 2
160533	Swedish 3
160541	Yiddish 1
160542	Yiddish 2
160543	Yiddish 3
160600	Greek, Other
160611	Modern Greek for Survival
160621	Modern Greek
160622	Modern Greek 2
160623	Modern Greek 3
160624	Modern Greek 4
160631	Classical Greek 1
160632	Classical Greek 2
160633	Classical Greek 3
160634	Classical Greek 4
160700	Indic Languages, Other
160800	Iranian Languages, Other
160900	Italic Languages, Other
160901	French 7

160902	French 8
160903	French 1
160904	French 2
160905	French 3
160906	French 4
160907	French, Advanced Placement
160908	French Field-Based Experience
160909	Foreign Language Contract, French
160910	French, Conversational
160911	Italian 7
160912	Italian 8
160913	Italian 1
160914	Italian 2
160915	Italian 3
160916	Italian 4
160917	Italian, Advanced Placement
160918	Italian Field-Based Experience
160919	Foreign Language Contract, Italian
160920	Latin 1
160921	Latin 2
160922	Latin 3
160923	Latin 4
160924	Latin, Advanced Placement
160925	Foreign Language Contract, Latin
160926	Portuguese 1
160927	Portuguese 2
160928	Portuguese 3
160929	Portuguese 4
160930	Portuguese 5
160931	Spanish 7
160932	Spanish 8
160933	Spanish 1
160934	Spanish 2
160935	Spanish 3
160936	Spanish 4
160937	Spanish, Advanced Placement
160938	Spanish Field-Based Experience
160939	Foreign Language Contract, Spanish
160940	Unused Code
160941	Spanish for Travelers
160942	Spanish, Commercial
161000	Native American Languages, Other
161100	Semitic Languages, Other
161111	Hebrew 1
161112	Hebrew 2
161113	Hebrew 3
161114	Hebrew 4
161115	Arabic 1
161116	Arabic 2

161117	Arabic 3
161118	Arabic 4
161119	Foreign Language Contract - Arabic
161211	Turkish 1
161212	Turkish 2
161311	Spanish for Native Speakers 1
161312	Spanish for Native Speakers 2
161313	Spanish for Native Speakers 3
161314	Spanish for Native Speakers 4
161315	Spanish for Native Speakers 5/Advanced Placement
161321	Portuguese for Native Speakers 1
161322	Portuguese for Native Speakers 2
161323	Portuguese for Native Speakers 3
161324	Portuguese for Native Speakers 4
161331	Italian for Native Speakers 1
161332	Italian for Native Speakers 2
161333	Italian for Native Speakers 3
161341	Japanese for Native Speakers 1
161342	Japanese for Native Speakers 2
161343	Japanese for Native Speakers 3
161351	Chinese for Native Speakers 1
161352	Chinese for Native Speakers 2
161353	Chinese for Native Speakers 3
161361	French for Native Speakers 1
161362	French for Native Speakers 2
161363	French for Native Speakers 3
161364	French for Native Speakers 4
169900	Foreign Languages, Other
170100	Dental Services, Other
170111	Dental Assistant 1
170112	Dental Assistant 2
170121	Dental Assistant, Cooperative
170131	Dental Technology 1
170132	Dental Technology 2
170200	Diagnostic and Treatment Services, Other
170211	First Aid
170221	EKG Technician
170300	Medical Laboratory Technologies, Other
170311	Laboratory Program 1
170312	Laboratory Program 2
170321	Chemical Technology 1
170322	Chemical Technology 2
170400	Mental Health/Human Services, Other
170411	Home Health Aide
170421	Community Health
170431	Mental Health Worker
170500	Miscellaneous Allied Health Services, Other
170511	Health Occupations 1
170521	Health Occupations 2

170522	Central Service Technician
170531	Medical Terminology
170541	Medical Records Secretary
170551	Medical Assisting
170561	Sports Medicine
170571	Veterinary Science
170581	Chemistry for Health Science
170591	Health Occupations, Independent Study
170592	Health Occupations - Cooperative Education 1
170593	Health Occupations - Cooperative Education 2
170600	Nursing-Related Services, Other
170611	Student Assessment of Child Health
170621	Nursing, Practical
170631	Nurse's Aide and Orderly
170641	Nurse's Aide, Cooperative
170651	Nurse's Mathematics
170700	Ophthalmic Services, Other
170711	Optical Services Assistant
170800	Rehabilitation Services, Other
179900	Allied Health, Other
180100	Audiology and Speech Pathology, Other
180200	Basic Clinical Health Sciences, Other
180300	Chiropractic, Other
180400	Dentistry, Other
180500	Emergency/Disaster Science, Other
180600	Epidemiology, Other
180700	Health Sciences Administration, Other
180800	Hematology, Other
180900	Medical Laboratory, Other
181000	Medicine, Other
181100	Nursing, Other
181200	Optometry, Other
181300	Osteopathic Medicine, Other
181400	Pharmacy, Other
181411	Pharmacy Technician
181500	Podiatry, Other
181600	Population and Family Planning, Other
181700	Pre-Dentistry, Other
181800	Pre-Medicine, Other
181801	Medical Ethics
181900	Pre-Pharmacy, Other
182000	Pre-Veterinary, Other
182100	Prosectorial Science, Other
182200	Public Health Laboratory Science, Other
182300	Toxicology (Clinical), Other
182400	Veterinary Medicine, Other
189900	Health Sciences, Other
190100	Home Economics, Other General
190200	Business Home Economics, Other

190300	Family and Community Services, Other
190400	Family/Consumer Resource Management, Other
190500	Food Sciences and Human Nutrition, Other
190600	Human Environment and Housing, Other
190700	Individual and Family Development, Other
190800	International/Comparative Home Economics, Other
190900	Textiles and Clothing, Other
199900	Home Economics, Other
200100	Consumer and Homemaking Home Economics, Other
200111	Home Economics 7
200112	Home Economics 8
200113	Home Economics 1
200114	Home Economics 2
200115	Home Economics 3
200116	Home Economics 4
200117	Adult Roles and Functions
200118	Comprehensive Consumer and Homemaking Home
200121	Child Development 8
200122	Child Development 1
200123	Child Development 2
200124	Child Development 3
200125	Child Development 4
200126	Current Issues in Child Development
200131	Clothing 7
200132	Clothing 8
200133	Clothing 1
200134	Clothing 2
200135	Clothing 3
200136	Clothing 4
200137	Tailoring
200141	Consumer Education
200142	Consumer Education 2
200151	Home Economics Occupations 1, Exploratory
200152	Home Economics Occupations 2, Exploratory
200153	Home Economics Laboratory Assistant
200154	Home Economics Leadership
200161	Family Health 1
200162	Family Health 2
200171	Family Relations
200172	Marriage Society and Change
200173	Parenthood
200181	Foods and Nutrition 7
200182	Foods and Nutrition 8
200183	Foods 1
200184	Foods 2
200185	Foods 3
200186	Foods 4
200187	International Foods
200188	Nutrition

200191	Home Management 1
200192	Home Management 2
200193	Home Economics - Cooperative Education 1
200194	Home Economics - Cooperative Education 2
200200	Child Care and Guidance Management and Services, Other
200211	Child Care Services
200221	Child Care Aide
200231	Child Care Management
200241	Foster Care and Family Care
200251	Teacher Aide/Elementary
200252	Teacher Aide/Secondary
200261	Child Care - Cooperative Education 1
200262	Child Care - Cooperative Education 2
200300	Clothing, Apparel, and Textiles Management, Production, and Services,
200311	Clothing Occupations 1
200312	Clothing Occupations 2
200313	Clothing Occupations 3
200314	Clothing Occupations - Cooperative Education 1
200315	Clothing Occupations - Cooperative Education 2
200321	Clothing Maintenance Aide
200331	Commercial Garment and Apparel Construction
200341	Custom Apparel Construction
200351	Custom Tailoring and Alteration
200361	Wedding and Specialty Consulting
200371	Fashion and Fabric Coordination
200381	Textiles Testing
200391	Clothing Production Management
200400	Food Production, Management and Services, Other
200411	Food Service Training
200412	Food Service Training 2
200413	Food Services/Restaurant Management
200421	Food Service Cooperative Training
200431	Baking
200441	Chef
200451	Catering
200461	Dietetic Aide
200471	Food Testing
200481	School Food Service
200500	Home Furnishings and Equipment Management, Production, and Services,
200511	Housing and Interior Design 1
200512	Housing and Interior Design 2
200513	Interior Design Occupations
200521	Floral Design
200531	Home Decorating
200541	Home Furnishings Aide
200551	Custom Drapery and Window Treatment Design
200561	Custom Slipcovering and Upholstering
200571	Home-Service Assisting 1
200572	Home Service Assisting 2

200573	Home Service Asst - Cooperative Education 1
200574	Home Service Asst - Cooperative Education 2
200600	Institutional, Home Management, and Supporting
200611	Custodial Services
200621	Executive Housekeeping
200631	Homemaker's Aide
200641	Companion to the Aged
200642	Geriatrics 2
200643	Geriatrics - Cooperative Education 1
200644	Geriatrics - Cooperative Education 2
200651	Consumer Aide
200661	Therapeutic Recreation Aide
200671	Institutional, Home Management Support Services -
209900	Vocational Home Economics, Other
210100	Industrial Arts, Other
210101	Industrial Arts 7
210102	Industrial Arts 8
210103	Industrial Arts 1
210104	Industrial Arts 2
210105	Industrial Arts 3
210106	Industrial Arts 4
210107	Industry and Technology
210108	Industrial Production
210109	Industrial Occupations 1
210110	Industrial Occupations 2
210111	Industrial Cooperative Work Experience
210112	Industrial Cooperative Work Experience, Advanced
210113	Electricity 1
210114	Electricity 2
210115	Electronics 1
210116	Electronics 2
210117	Electronics 3
210118	Electronics 4
210119	Electricity and Electronics, Introduction
210120	Electricity and Electronics, Advanced
210121	Machine Shop 1
210122	Machine Shop 2
210123	Machine Shop 3
210124	Machine Shop 4
210125	Industrial Education Management Trainee
210126	Industrial Arts Research
210130	Electricity - Cooperative Education 1
210131	Electricity - Cooperative Education 2
210140	Electronics - Cooperative Education 1
210141	Electronics - Cooperative Education 2
210150	Electricity/Electronics - Cooperative
210151	Electricity/Electronics - Cooperative
220100	Law, Other
220111	Law Fundamentals

220121	Law and You
220131	Street Law
230100	English, Other General
230101	English 7
230102	English 7, Honors
230103	English 8, Below Grade Level
230104	English 8
230105	English 8, Honors
230106	English 1, Below Grade Level
230107	English 1
230108	English 1, Honors
230109	English 2, Below Grade Level
230110	English 2
230111	English 2, Honors
230112	English 3, Below Grade Level
230113	English 3
230114	English 3, Honors
230115	English 4, Below Grade Level
230116	English 4
230117	English 4, Honors
230118	World Literature
230119	Renaissance Literature
230120	Romanticism
230121	Realism
230122	Literature, Contemporary
230123	Irish Literature
230124	Russian Literature
230125	Bible as Literature
230126	Mythology and Fable
230127	Drama, Introduction
230128	World Drama
230129	Plays, Modern Survey
230130	Novels
230131	Short Story
230132	Mysteries
230133	Poetry
230134	Rock Poetry
230135	Humor
230136	Biography
230137	Non Fiction
230138	Science Fiction
230139	Themes in Literature
230140	Literature of Human Values
230141	Ethnic Literature
230142	Women in Literature
230143	Sports through Literature
230144	Occult Literature
230145	Protest Literature
230146	Youth and Literature

230147	Heroes
230148	Utopias
230149	Death
230150	Nobel Prize Authors
230151	Seminar on an Author
230152	English, Real Life Problem Solving
230153	Reading, Independent Study
230154	Research Technique
230155	Children's Literature & Fantasy
230156	Vocational English
2301610	English Skills 1 for Visually Impaired
2301620	English Skills 2 for Visually Impaired
2301630	English Skills 3 for Visually Impaired
2301640	English Skills 4 for Visually Impaired
230200	Classics, Other
230211	Mythological Literature, Greek and Roman
230300	Comparative Literature, Other
230311	Comparative Literature
230321	Latin American Authors/Literature
230400	Composition, Other
230401	Composition, Expository
230402	Writing Laboratory
230403	Writing About Literature
230404	Vocabulary
230405	Spelling
230406	Grammar 7
230407	Grammar 8
230408	Grammar 9
230409	Grammar 10
230410	Grammar 11
230411	Grammar 12
230412	Etymology
230413	Handwriting
230414	Interpersonal Communication
230415	Word Study - Remedial
230500	Creative Writing, Other
230511	Creative Writing 10
230512	Creative Writing 11
230513	Creative Writing 12
230521	Creative Writing, Independent Study
230600	Linguistics (includes Phonetics, Semantics, and Philology)
230611	Linguistics
230700	Literature, American, Other
230711	American Literature
230721	Black Literature
230741	Folklore, American
230751	Indian Literature
230761	State Writers
230771	Western Literature

230781	Mexican American Literature
230800	Literature, English, Other
230811	British Literature Survey
230821	Shakespeare
230831	Modern British Writers
230841	Victorian Literature
230851	Satire, Modern British
230861	Arthurian Legend
230871	Medieval Literature
230900	Rhetoric, Other
231000	Speech, Debate, and Forensics, Other
231011	Public Speaking
231021	Speech 1
231022	Speech 2
231023	Speech 3
231031	Debate Practicum Contract
231100	Technical and Business Writing, Other
231111	Technical English
231211	Reading Development 1
231212	Reading Development 2
231213	Reading Development 3
231214	Reading Development 4
231215	Speed Reading
231216	Advanced Reading & Study Skills
231311	Functional English 1
231312	Functional English 2
231313	Functional English 3
231314	Functional English 4
239900	Letters, Other
240100	Liberal/General Studies, Other
240111	Liberal Studies
240121	Summer Abroad
240131	Independent Study
240141	Gifted and Talented Program
250100	Library and Archival Sciences, Other General
250111	Library Science
250200	Archival Science, Other
250300	Library Assisting, Other
250311	Library Assistant
250400	Library Science, Other
250500	Museology, Other
259900	Library and Archival Sciences, Other
260100	Biology, Other General
260111	Science 7
260121	Biology, Basic 1
260122	Biology, Basic 2
260131	Biology, General 1
260132	Biology, General 2
260141	Biology, Honors 1

260142	Biology, Advanced
260151	Field Biology
260161	Genetics
260171	Biopsychology
260181	Biology Seminar
260200	Biochemistry and Biophysics, Other
260211	Biochemistry
260300	Botany, Other
260311	Botany
260400	Cell and Molecular Biology, Other
260411	Cell Biology
260500	Microbiology, Other
260511	Microbiology
260600	Miscellaneous Specialized Areas, Life Sciences, Other
260611	Ecology
260621	Marine Biology
260622	Marine Biology, Advanced
260631	Anatomy
260700	Zoology, Other
260711	Zoology
260721	Zoology, Vertebrate
260731	Zoology, Invertebrate
260741	Animal Behavior
260751	Physiology, Human
260752	Physiology, Advanced
260761	Pathology
260771	Comparative Embryology
269900	Life Sciences, Other
270100	Mathematics, Other General
270101	Mathematics 7
270102	Mathematics 7, Accelerated
270103	Mathematics 8
270104	Mathematics 8, Accelerated
270105	Unused Code
270106	Mathematics 1, General
270107	Mathematics 2, General
270108	Science Mathematics
270109	Mathematics in the Arts
270110	Mathematics, Vocational
270111	Technical Mathematics
270112	Mathematics Review
270113	Mathematics Tutoring
270114	Consumer Mathematics
270200	Actuarial Sciences, Other
270300	Applied Mathematics, Other
270400	Pure Mathematics, Other
270401	Pre-Algebra
270402	Algebra 1, Part 1
270403	Algebra 1, Part 2

270404	Algebra 1
270405	Algebra 2
270406	Geometry, Plane
270407	Geometry, Solid
270408	Geometry, Plane and Solid
270409	Geometry, Informal
270410	Algebra 3
270411	Trigonometry
270412	Analytic Geometry
270413	Trigonometry and Solid Geometry
270414	Algebra and Trigonometry
270415	Algebra and Analytic Geometry
270416	Analysis, Introductory
270417	Linear Algebra
270418	Calculus and Analytic Geometry
270419	Calculus
270420	Calculus, Advanced Placement
270421	Mathematics 1, Unified
270422	Mathematics 2, Unified
270423	Mathematics 3, Unified
270424	Mathematics, Independent Study
270500	Statistics, Other
270511	Statistics
270521	Probability
270531	Probability and Statistics
270601	Basic Math 1
270602	Basic Math 2
270603	Basic Math 3
270604	Basic Math 4
279900	Mathematics, Other
280100	Aerospace Science (Air Force), Other
280111	Aerospace Education
280112	Aerospace Education 2
280113	Aerospace Education 3
280114	Aerospace Education 4
280121	Civil Air Patrol
280200	Coast Guard Science, Other
280300	Military Science (Army), Other
280311	Army Leadership Development, Introduction
280312	Army Intermediate Leadership Development
280313	Army Applied Leadership Development
280314	Army Advanced Leadership Development
280400	Naval Science (Navy, Marines), Other
280411	Naval Science 1
280412	Naval Science 2
280413	Naval Science 3
280414	Naval Science 4
280421	Marine Corps Leadership Education 1
280422	Marine Corps Leadership Education 2

280423	Marine Corps Leadership Education 3
280424	Marine Corps Leadership Education 4
289900	Military Sciences, Other
290100	Military Technologies, Other
300100	Biological and Physical Sciences, Other
300111	Science, Unified
300112	College Pre-Science Skills
300121	Science Study, Independent
300131	Outdoor Education
300200	Clinical Pastoral Care, Other
300300	Engineering and Other Disclplines, Other
300311	Engineering Concepts
300400	Humanities and Social Sciences, Other
300411	Humanities
300421	Humanities, European
300431	Humanities, American
300441	Humanities, African
300451	Humanities, Near East and Far East
300500	Peace Studies, Other
300600	Systems Science, Other
300611	Futuristics
300621	Environmental Science
300631	Energy and Environment
300700	Women's Studies, Other
300711	Women's Studies
300721	Women's Studies in Literature
309900	Multi/Interdisciplinary Studies, Other
310100	Parks and Recreation, Other General
310111	Recreation Aide
310121	Search and Rescue
310200	Outdoor Recreation, Other
310211	Winter/Ski Resort Operation
310300	Parks and Recreation Management, Other
310400	Water Resources, Other
319900	Parks and Recreation, Other
320100	Basic Skills, Career and Employment, Other
320101	Unused Code
320102	Career Preparation
320103	Career Exploration
320104	Work Experience
320105	Work Experience, Advanced
320106	Cooperative Education 1
320107	Cooperative Education 2
320108	Unused Code
320109	Unused Code
320110	Unused Code
320111	Unused Code
320112	Unused Code
320113	Unused Code

320114	Unused Code
320115	Unused Code
320116	Unused Code
320117	Unused Code
320118	Unused Code
320119	Unused Code
320120	Unused Code
320121	Off-Campus Vo Tech Training - Unspecified
320200	Basic Skills, General, Other
320201	Resource Room (Non Special Education)
320211	Study Dynamics
320221	Test Taking
330100	Citizenship/Civic Activities, Other
330111	Student Assistant
330121	Pep Squad
330131	Student Government
330141	Tutoring
330151	Community Service
330161	Unused Code
340100	Health-Related Activities, Other
340111	Physical and Health Education 7
340112	Physical and Health Education 8
340113	Physical and Health Education 9
340114	Physical Education 10
340115	Physical Education 11
340116	Physical Education 12
340121	Physical Education, Adaptive
340121	Adaptive Physical Education (Multihandicapped)
340121	Adaptive Physical Education Nonregular program
340122	Physical Education - Medically Excused
340129	Adaptive Physical Education (Multihandicapped)
340129	Adaptive Physical Education Nonregular program
340131	Health 7
340132	Health 8
340133	Health 9
340134	Health 10
340135	Health 11
340136	Health 12
340137	State Requirements
340138	Modern Medical Issues
340141	Drugs Alcohol and Tobacco
340151	Driver Education, Classroom
340152	Driver Education, Practice
340161	Physical Education Leadership Training
340171	Life Saving
340181	Safety
340191	Sex Education
350100	Interpersonal Skills, Other
350111	Interpersonal Relationships

350121	Building Human Relationships
350131	Peer Counseling
360100	Leisure and Recreational Activities, Other
360111	Sports, Individual
360121	Sports, Team
360131	Gymnastics
360141	Drill Team
360151	Track and Field
360161	Aquatics
360171	Conditioning and Athletics
360181	Motorcycle Operation
360191	Recreational Activities
360192	Experiential Outdoor Education
370100	Personal Awareness, Other
370111	Personal Development Techniques
370121	Coping with Personal Problems
370131	Self Perception
380100	Philosophy, Other
380111	Philosophy
380121	Ethics
380131	Logic
380141	Epistemics
380151	Social Justice Issues
380200	Religion, Other
380201	Catholicism, Foundations
380202	Who Is Jesus
380203	Scripture
380204	Moral Issues, Social and Individual
380205	Marriage, Life Choices in Christian Living
380206	Comparative Religion
380207	Sacraments
380208	Eastern Religious Thought
380209	Religion and Psychology
380210	Western Religions
380211	Religion and Literature
380212	Religion, Introduction
380213	Prayer and Liturgy
380214	Judaism, Foundations
380215	Protestantism, Foundations
380216	Religious Movements in America
380217	Islam and the Koran
389900	Philosophy and Religion, Other
390100	Biblical Languages, Other
390200	Bible Studies, Other
390300	Missionary Studies, Other
390400	Religious Education, Other
390500	Religious Music, Other
390600	Theological Studies, Other
390611	Theological Studies

399900	Theology, Other
400100	Physical Sciences, Other General
400111	Science 8
400121	Physical Science
400131	Chemistry and Physics Laboratory Techniques
400141	Physical Science, Applied
400200	Astronomy, Other
400211	Astronomy
400300	Astrophysics, Other
400400	Atmospheric Sciences and Meteorology, Other
400411	Meteorology
400500	Chemistry, Other
400511	Chemistry, Introductory
400521	Chemistry 1
400522	Chemistry 2
400531	Organic Chemistry
400541	Physical Chemistry
400551	Consumer Chemistry
400561	Chemistry, Independent Study
400600	Geological Sciences, Other
400611	Earth Science
400621	Earth Science, College Preparatory
400631	Geology
400632	Geology - Field Studies
400641	Mineralogy
400700	Miscellaneous Physical Sciences, Other
400711	Oceanography
400800	Physics, Other
400811	Physics, General
400821	Physics 1
400822	Physics 2
400831	Physics 2 without Calculus
400841	Electricity and Electronics Science
400851	Acoustics
400900	Planetary Science, Other
400911	Rocketry and Space Science
401011	Aerospace Science
409900	Physical Sciences, Other
410100	Biological Technologies, Other
410200	Nuclear Technologies, Other
410211	Radioactivity
410300	Physical Science Technologies, Other
419900	Science Technologies, Other
420100	Psychology, Other General
420111	Psychology
420112	Psychology, Advanced
420113	Abnormal Psychology
420200	Clinical Psychology, Other
420300	Cognitive Psychology, Other

420311	Psychology of Learning
420321	Educational Psychology
420400	Community Psychology, Other
420500	Comparative Psychology, Other
420600	Counseling Psychology, Other
420700	Developmental Psychology, Other
420711	Child Psychology
420721	Adolescent Psychology
420731	Adjustment Psychology
420800	Experimental Psychology, Other
420900	Industrial and Organizational Psychology, Other
421000	Personality Psychology, Other
421011	Historical Personalities and Ideas
421021	Humanistic Psychology
421100	Physiological Psychology, Other
421200	Psycholinguistics, Other
421300	Psychometrics, Other
421400	Psychopharmacology, Other
421411	Psychopharmacology
421500	Quantitative Psychology, Other
421600	Social Psychology, Other
421611	Social Psychology
429900	Psychology, Other
430100	Criminal Justice, Other
430111	Law Enforcement
430121	Law Science
430200	Fire Protection, Other
430211	Fire Fighting Practices
430221	Fire Safety Education
430311	Security Guard
439900	Protective Services, Other
440100	Public Affairs, Other General
440200	Community Services, Other
440300	International Public Service, Other
440400	Public Administration, Other
440500	Public Policy Studies, Other
440600	Public Works, Other
440700	Social Work, Other
440711	Human Services
449900	Public Affairs, Other
450100	Social Sciences, Other General
450111	Social Science, Introduction
450121	Social Science, Advanced Theory and Research
450131	Social Science Seminar
450141	Social Studies, Independent Study
450200	Anthropology, Other
450211	Anthropology
450221	Comparative Cultural Patterns
450231	Anthropology, Myth and Magic

450241	Cultural Anthropology, Research
450300	Archaeology, Other
450311	Archaeology
450400	Criminology, Other
450500	Demography, Other
450511	Population Education
450600	Economics, Other
450601	Economics, Theory
450602	Economics and Economic Problems
450603	Consumer Economics
450604	Filing Your Income Taxes
450605	Insurance Theory
450606	Investment Economics
450607	Television and Economics
450608	Energy Education
450609	American Labor History
450610	Economics, Analysis and Criticism
450611	Economics, College
450612	International Economics
450700	Geography, Other
450701	Geography 8
450702	Geography, United States
450703	Geography, North American
450704	World Geography
450705	Geography, Western Hemisphere and Africa
450706	Geography, Eastern Hemisphere
450707	Physical Geography
450708	Economic and Political Geography
450709	Human and Cultural Geography
450710	Field Geography, Honors
450800	History, Other
450801	History and Geography 7
450802	Our Cultural Heritage 7
450803	Social Studies 7, Honors
450804	United States History 8
450805	Social Studies 8
450806	Social Studies 8, Honors
450807	United States History, State and Local
450808	United States History, Advanced Placement
450809	American History, Basic
450810	American History
450811	United States History 1
450812	United States History 2
450813	United States History, Honors
450814	American History, Advanced Placement
450815	Westward Movement
450816	Twentieth Century America
450817	Twenties and Thirties
450818	America Since 1945

450819	Nineteen Sixties
450820	Nineteen Seventies
450821	Reform in American History
450822	American Inquiries
450823	Historic Events, United States
450824	American Wars, Causes and Effects
450825	Civil War
450826	Civil War, Reconstruction and Industrialism
450827	War and Modern Consciousness
450828	World War II
450829	United States Military History 1
450830	United States Military History 2
450831	United States History, Field Study
450832	North American History
450833	Mexican History
450834	South American History
450835	World History
450836	World History, College
450837	World History, Modern
450838	World Civilization, Twentieth Century
450839	World Civilization, Twentieth Century, Honors
450840	Western Civilization 9
450841	Western Civilization 9, Honors
450842	Western Civilization, History
450843	Early Western Civilization
450844	Western Civilization, Advanced Placement
450845	Ancient and Classical World
450846	Ancient Greek History
450847	Rome and Her Empire
450848	Ancient History and Middle Ages
450849	English History
450850	English History, Honors
450851	French Revolution, Honors
450852	Modern Europe
450853	European History, Mid-Nineteenth Through
450854	European History, Twentieth Century
450855	European History, Advanced Readings
450856	European History, Modern, Advanced Placement
450857	Third World History
450858	African History
450859	Africa, Middle East and Latin America
450860	Latin American History
450861	Middle East History
450862	Israel, History
450863	Eastern Civilization
450864	Far East, History
450865	Asian History, Modern
450866	Pacific Lands, History
450867	Russian History

450868	World Leaders, Past and Present
450869	Historical Research
450900	International Relations, Other
450911	International Relations
450921	International Relations, Honors
450931	International Law
450941	Model Security Council, Local
450951	Model United Nations, Local
450952	Model United Nations, National
451000	Political Science and Government, Other
451001	Civics
451002	State and Local Government
451003	Government, Basic
451004	American Government
451005	Presidency
451006	Framework of the Constitution
451007	Individual vs State
451008	National State and Local Elections
451009	Elections, Politics and Morality, Honors
451010	Contemporary World Affairs
451011	American Foreign Policy
451012	Decision Making in a Crisis
451013	American Heritage, Honors
451014	Contemporary American Political Issues
451015	Contemporary American Political Issues, Honors
451016	American Government and Economics, Basic
451017	American Government and Economics
451018	American Government and Economics, Honors
451019	Comparative Political Systems, Basic
451020	Comparative World Governments
451021	Americanism vs Communism
451022	Americanism vs Communism, Honors
451023	Communism and Its Growth
451024	Civics, Honors
451025	Writings Influencing Government
451026	Government Internship
451027	Model Senate
451028	Political Leadership
451029	Political Science
451030	Political Science, Advanced Placement
451031	Political Science and Government -
451032	Political Turmoil
451033	Contemporary Issues, Basic Skills
451100	Sociology, Other
451111	American Social Problems, Introduction
451121	Sociology, General
451131	Sociology, Issues
451132	The Poor in America
451141	Mobility in Society

451151	Violence In America
451161	Death and Dying
451171	Sociology, Honors
451181	Sociology, Research
451200	Urban Studies, Other
451211	Urban Problems
451221	Urban Ecology
451231	Technology and Urbanization
459900	Social Sciences, Other
460100	Brickmasonry, Stonemasonry, and Tile Setting,Other
460111	Masonry 1
460112	Masonry 2
460113	Masonry 3
460121	Tile Setting and Plastering
460131	Concrete Technician
460200	Carpentry, Other
460211	Carpentry 1
460212	Carpentry 2
460213	Carpentry 3
460300	Electrical and Power Transmission Installation, Other
460311	Housewiring 1
460312	Housewiring 2
460321	Electric Power and Communications Lineworker
460400	Miscellaneous Construction Trades, Other
460411	Building Construction 1
460412	Building Construction 2
460413	Building Construction 3
460421	Painting and Decorating
460422	Flooring Installation
460431	Building Maintenance
460441	Home Maintenance and Repair
460451	Building Construction - Cooperative Education 1
460452	Building Construction - Cooperative Education 2
460500	Plumbing, Pipefitting, and Steamfitting, Other
460511	Plumbing 1
460512	Plumbing 2
469900	Construction Trades, Other
470100	Electrical and Electronics Equipment Repair, Other
470111	Small Appliance Repair
470121	Radio and TV Repair 1
470122	Radio and TV Repair 2
470123	Radio and TV Repair 3
470124	Telecommunications Technician
470131	Appliance Repair 1
470132	Appliance Repair 2
470141	Vending Machine Repair
470151	Business Machine Repair
470161	Industrial Electricity
470171	Industrial Electronics

470181	Food Processing Machine Maintenance Technician/
470200	Heating, Air Conditioning, and Refrigeration
470211	Air Conditioning, Refrigeration, and Heating
470212	Air Conditioning, Refrigeration, and Heating, Advanced
470213	Air Conditioning, Refrigeration and Heating 3
470300	Industrial Equipment Maintenance and Repair, Other
470311	Industrial Mechanics 1
470312	Industrial Mechanics 2
470321	Diesel Mechanics
470331	Industrial Maintenance Mechanics 1
470332	Industrial Maintenance Mechanics 2
470341	Petroleum Drilling Equipment Operation
470342	Petroleum Drilling Equipment Operation
470343	Petroleum Drilling Equipment Operation
470400	Miscellaneous Mechanics and Repairers, Other
470411	Musical Instrument Repair
470421	Instrument Maintenance and Repair
470431	Shoe Repair and Orthopedics 1
470432	Shoe Repair and Orthopedics 2
470433	Watch and Clock Repair
470434	Bicycle Repair
470500	Stationary Energy Sources, Other
470511	Power Mechanics 1
470512	Power Mechanics 2
470513	Power Mechanics 3
470514	Power Mechanics 4
470521	Hydraulics and Pneumatics
470600	Vehicle and Mobile Equipment Mechanics and
470611	Small Engine Repair 1
470612	Small Engine Repair 2
470621	Auto Mechanics 1
470622	Auto Mechanics 2
470623	Auto Mechanics 3
470624	Auto Mechanics - Cooperative Education 1
470625	Auto Mechanics - Cooperative Education 2
470631	Auto Body 1
470632	Auto Body 2
470633	Auto Body 3
470641	Auto Service 1
470642	Auto Service 2
470651	Consumer Auto
470661	Airframes 1
470662	Airframes 2
470671	Aviation Powerplant 1
470672	Aviation Powerplant 2
470673	Aviation Powerplant 3
470674	Aviation Powerplant 4
470681	Aviation Quality Control 1
470682	Aviation Quality Control 2

470691	Aircraft Sheetmetal 1
470692	Aircraft Sheetmetal 2
479900	Mechanics and Repairers, Other
480100	Drafting, Other
480111	Mechanical Drawing 1
480112	Mechanical Drawing 2
480113	Mechanical Drawing 3
480114	Mechanical Drawing 4
480121	Architectural Drawing 1
480122	Architectural Drawing 2
480123	Architectural Drawing 3
480124	Architectural Drawing 4
480131	Engineering Drawing 1
480132	Engineering Drawing 2
480141	Blueprint Reading
480151	Drafting 1, Cooperative
480152	Drafting 2, Cooperative
480200	Graphic and Printing Communications, Other
480211	Commercial Art 1
480212	Commercial Art 2
480213	Commercial Art, Cooperative
480214	Commercial Art 3
480221	Graphic Arts 1
480222	Graphic Arts 2
480223	Graphic Arts 3
480224	Graphic Arts 4
480231	Sign Painting 1
480232	Sign Painting 2
480233	Sign Painting 3
480241	Bindery
480251	Electronic Composition
480261	Copy Editing
480300	Leatherworking and Upholstering, Other
480311	Leatherwork 1
480312	Leatherwork 2
480321	Upholstery
480322	Upholstery, Advanced
480331	Auto Upholstery
480400	Precision Food Production, Other
480411	Meatcutting 1
480412	Meatcutting 2
480500	Precision Metal Work, Other
480511	Metal 1
480512	Metal 2
480513	Metal 3
480514	Metal 4
480521	Welding 1
480522	Welding 2
480523	Welding 3

480524	Welding - Cooperative Education
480531	Sheet Metal 1
480532	Sheet Metal 2
480541	Metal Restoration
480551	Foundry 1
480552	Foundry 2
480600	Precision Work, Assorted Materials, Other
480611	Plastics 1
480612	Plastics 2
480621	Space Age Plastics
480700	Woodworking, Other
480711	Woodworking 1
480712	Woodworking 2
480713	Woodworking 3
480714	Woodworking 4
480721	Furniture Refinishing
480731	Cabinetmaking 1
480732	Cabinetmaking 2
489900	Precision Production, Other
490100	Air Transportation, Other
490111	Aeronautics 1
490112	Aeronautics 2
490121	Aviation Technology 1
490122	Aviation Technology 2
490123	Aviation Technology 3
490124	Aviation Technology 4
490131	Air Travel Service Occupations
490141	Aircraft Parts Management 1
490142	Aircraft Parts Management 2
490200	Vehicle and Equipment Operation, Other
490211	Forklift Operator
490212	Tractor-Trailer Truck Driving
490213	Heavy Vehicle Operation/Earth Moving Equipment
490214	Bus Driver/Chauffeur
490300	Water Transportation, Other
490311	Marine Mechanics, Basic
490312	Marine Mechanics, Advanced
490321	Boat Building
490331	Navigation
490341	Aquatic Occupations
490411	Introduction to Transportation Industry
490412	Transportation Technology 2
490421	Transportation/Traffic Technician
499900	Transportation and Material Moving, Other
500100	Visual and Performing Arts, Other General
500111	Aesthetics
500200	Crafts, Other
500211	Crafts 7
500212	Crafts 8

500213	Crafts 9
500214	Crafts 10
500215	Crafts 11
500216	Crafts 12
500221	Crafts 11, Advanced
500222	Crafts 12, Advanced
500231	Decorator Crafts
500241	Enameling
500251	Jewelry 1
500252	Jewelry 2
500253	Jewelry 3
500254	Jewelry 4
500261	Ceramics 7
500262	Ceramics 8
500263	Ceramics 9
500264	Ceramics 10
500265	Ceramics 11
500266	Ceramics 12
500271	Textile Design
500281	Model Building
500291	Printmaking 1
500292	Printmaking 2
500300	Dance, Other
500311	Modern Dance for Beginners 9
500312	Modern Dance for Beginners 10
500313	Modern Dance for Beginners 11
500314	Modern Dance for Beginners 12
500321	Modern Dance 9, Intermediate
500322	Modern Dance 10, Intermediate
500323	Modern Dance 11, Intermediate
500324	Modern Dance 12, Intermediate
500331	Dance 9, Advanced
500332	Dance 10, Advanced
500333	Dance 11, Advanced
500334	Dance 12, Advanced
500341	Performing Dance Group 9
500342	Performing Dance Group 10
500343	Performing Dance Group 11
500344	Performing Dance Group 12
500351	Ballet and Jazz for Beginners 9
500352	Ballet and Jazz for Beginners 10
500353	Ballet and Jazz for Beginners 11
500354	Ballet and Jazz for Beginners 12
500361	Ethnic Dance
500371	Square Dance
500381	Aerobic Dance
500400	Design, Other
500411	Graphic Design
500421	Theater Makeup

500431	Lighting Fundamentals, Theater
500500	Dramatic Arts, Other
500511	Stagecraft 9
500512	Stagecraft 10
500513	Stagecraft 11
500514	Stagecraft 12
500521	Improvisation and Mime
500531	Playwriting
500541	Theater Practicum Contract
500551	Drama, History
500561	Drama, Independent Study
500600	Film Arts, Other
500611	Film Study
500612	Language of the Cinema
500621	Photography 10
500622	Photography 11, Elementary
500623	Photography 12, Elementary
500631	Photography 11, Advanced
500632	Photography 12, Advanced
500700	Fine Arts, Other
500701	Fine Arts 7
500702	Fine Arts 8
500703	Art, General
500704	Art 1
500705	Art 2
500706	Art 3
500707	Art 4
500708	Art 1, Independent Study
500709	Art 2, Independent Study
500711	Art Services 10
500712	Art Services 11
500713	Art Services 12
500714	Drawing
500715	Painting 1
500716	Painting 2
500717	Watercolor 1
500718	Cartooning
500719	Mural Painting
500720	Sculpture
500721	Silk Screen
500722	Assemblage
500723	Product Design
500724	Life Drawing
500725	Calligraphy
500726	Art History and Appreciation
500727	Black Fine Arts
500728	Mexico, Fine Arts
500729	Bicultural Art
500730	Artist in Residence Program

500731	Ethnic Art History
500732	Art As A Multicultural Study
500800	Graphic Arts Technology, Other
500811	Computer Graphics Design
500900	Music, Other
500901	Music 7
500902	Music 8
500903	Band 7
500904	Band 7, Advanced
500905	Band 8
500906	Band 8, Advanced
500907	Band 9
500908	Band 9, Advanced
500909	Band, Concert
500910	Band, Marching
500911	Band, Symphonic
500912	Orchestra 7
500913	Orchestra 7, Advanced
500914	Orchestra 8
500915	Orchestra 8, Advanced
500916	Orchestra 9
500917	Orchestra 9, Advanced
500918	Orchestra 10
500919	Orchestra 11
500920	Orchestra 12
500921	Instrumental String Class
500922	Brass and Percussion Class
500923	Wind Ensemble
500924	Woodwind Class
500925	Electronic Music, Introduction
500926	Ensemble, Instrumental
500927	Guitar, Beginning
500928	Guitar, Intermediate
500929	Guitar, Advanced
500930	Handbells
500931	Piano 1
500932	Piano 2
500933	Organ
500934	Music Lessons, Applied
500935	Chorus 7
500936	Chorus 7, Advanced
500937	Chorus 8
500938	Chorus 8, Advanced
500939	Chorus 9
500940	Chorus 9, Advanced
500941	Chorus 10
500942	Chorus 10, Advanced
500943	Chorus 11
500944	Chorus 11, Advanced

500945	Chorus 12
500946	Chorus 12, Advanced
500947	Vocal Ensemble
500948	Voice Class
500949	Harmony and Composition
500950	Arranging
500951	Conducting
500952	Music Theory
500953	Music History 7
500954	Music History 8
500955	Music History 9
500956	Music History 10
500957	Music History 11
500958	Music History 12
500959	Music Literature 9
500960	Music Literature 10
500961	Music Literature 11
500962	Music Literature 12
500963	Music Appreciation
500964	Folk Music, Ethnic
500965	Music Theater
500966	Music, Independent Study
500967	Music Laboratory, General Survey
509900	Visual and Performing Arts, Other
510101	Executive Internship
510102	Executive Internship 2
510103	International Careers Internship
541001	General Math Skills
541009	Functional Math Skills, not for credit
541101	Functional Consumer Math
541109	Functional Consumer Math, not for credit
541201	Functional Vocational Math
541209	Functional Vocational Math, not for credit
542011	Functional Language Arts 1
542019	Functional Language Arts 1, not for credit
542021	Functional Language Arts 2
542029	Functional Language Arts 2, not for credit
542031	Functional Language Arts 3
542039	Functional Language Arts 3, not for credit
542041	Functional Language Arts 4
542049	Functional Language Arts 4, not for credit
542051	Functional Vocational English
542059	Functional Vocational English, not for credit
542101	Functional Reading
542109	Functional Reading, not for credit
542201	Functional Oral Communication
542209	Functional Oral Communication, not for credit
542301	Functional Writing
542309	Functional Writing, not for credit

542401	Functional Academics
542409	Functional Academics, not for credit
543001	Activities Of Daily And Family Living
543009	Activities of Daily and Family Living, not for
543101	Social/behavioral Skills
543109	Social/behavioral Skills, not for credit
543201	Functional Leisure And Recreational Skills
543209	Functional Leisure and Recreational Skills, not
543301	Functional Health
543309	Functional Health, not for credit
543401	Functional Transition Skills
543409	Functional Transition Skills, not for credit
544001	Functional Science
544009	Functional Science, not for credit
544501	Functional Social Skills
544509	Functional Social Studies, not for credit
549401	Handicapped Developmental Support Services
549409	Handicapped Developmental Support Services, not
550001	General Prevocational Preparation
550009	General Prevocational Preparation, not for credit
550101	Career Exploration
550109	Career Exploration, not for credit
550201	General Work-study/experience
550209	General Work-study/experience, not for credit
550301	General Work Experience
550309	General Work Experience, not for credit
550401	Combined Vocational/academic Preparation
550409	Combined Vocational/academic Preparation, not for
551011	General Agriculture 1
551019	General Agriculture 1, not for credit
551021	General Agriculture 2
551029	General Agriculture 2, not for credit
551031	General Agriculture 3
551039	General Agriculture 3, not for credit
551111	Animal Care 1
551119	Animal Care 1, not for credit
551121	Animal Care 2
551129	Animal Care 2, not for credit
551211	Plant Care 1
551219	Plant Care 1, not for credit
551221	Plant Care 2
551229	Plant Care 2, not for credit
551311	Agricultural Mechanics 1
551319	Agricultural Mechanics 1, not for credit
551321	Agricultural Mechanics 2
551329	Agricultural Mechanics 2, not for credit
551411	Agricultural Work Study
551419	Agricultural Work Study, not for credit
551511	Agricultural Work Experience

551519	Agricultural Work Experience, not for credit
552011	General Office Practice 1
552019	General Office Practice 1, not for credit
552021	General Office Practice 2
552031	General Office Practice 3
552111	Office Machines 1
552121	Office Machines 2
552211	Business Word Study 1
552221	Business Work Study 2
552311	Business Work Experience 1
552321	Business Work Experience 2
553011	General Health Occupations 1
553019	General Health Occupations 1, not for credit
553021	General Health Occupations 2
553029	General Health Occupations 2, not for credit
553031	General Health Occupations 3
553039	General Health Occupations 3, not for credit
553111	Health Occupations Work Study 1
553119	Health Occupations Work Study 1, not for credit
553121	Health Occupations Work Study 2
553129	Health Occupations Work Study 2, not for credit
553211	Health Occupations Work Experience 1
553219	Health Occupations Work Experience 1, not for credit
553221	Health Occupations Work Experience 2
553229	Health Occupations Work Experience 2
554011	General Home Economics 1
554019	General Home Economics 1, not for credit
554021	General Home Economics 2
554029	General Home Economics 2, not for credit
554031	General Home Economics 3
554039	General Home Economics 3, not for credit
554111	Child Development 1
554119	Child Development 1, not for credit
554121	Child Development 2
554129	Child Development 2, not for credit
554211	Clothing And Textiles 1
554219	Clothing and Textiles 1, not for credit
554221	Clothing And Textiles 2
554229	Clothing and Textiles 2, not for credit
554311	Food And Nutrition 1
554319	Food and Nutrition 1, not for credit
554321	Food And Nutrition 2
554329	Food and Nutrition 2, not for credit
554411	Home Economics Work Study 1
554419	Home Economics Work Study 1, not for credit
554421	Home Economics Work Study 2
554429	Home Economics Work Study 2, not for credit
554511	Home Economics Work Experience 1
554519	Home Economics Work Experience 1, not for credit

554521	Home Economics Work Experience 2
554529	Home Economics Work Experience 2, not for credit
555011	General Industrial Arts 1
555019	General Industrial Arts 1, not for credit
555021	General Industrial Arts 2
555029	General Industrial Arts 2, not for credit
555031	General Industrial Arts 3
555039	General Industrial Arts 3, not for credit
556111	Cosmetology/barber 1
556119	Cosmetology/barber 1, not for credit
556121	Cosmetology/barber 2
556129	Cosmetology/barber 2, not for credit
556211	Custodial And Housekeeping Services 1
556219	Custodial and Housekeeping Services 1, not for credit
556221	Custodial And Housekeeping Services 2
556229	Custodial and Housekeeping Services 2, not for credit
556311	Food Services 1
556319	Food Services 1, not for credit
556321	Food Services 2
556329	Food Services 2, not for credit
556411	Miscellaneous Services 1
556419	Miscellaneous Services 1, not for credit
556421	Miscellaneous Services 2
556429	Miscellaneous Services 2, not for credit
556511	Service Occupations Work Study 1
556519	Service Occupations Work Study 1, not for credit
556521	Service Occupations Work Study 2
556529	Service Occupations Work Study 2, not for credit
556611	Service Occupations Work Experience 1
556619	Service Occupations Work Experience 1, not for credit
556621	Service Occupations Work Experience 2
556629	Service Occupations Work Experience 2, not for credit
557111	Graphic And Printing Communications 1
557119	Graphic And Printing Communications 1, not for credit
557121	Graphic And Printing Communications 2,
557129	Graphic And Printing Communications 2, not for credit
557211	Leatherwork And Upholstery 1,
557219	Leatherwork And Upholstery 1, not for credit
557221	Leatherwork And Upholstery 2
557229	Leatherwork And Upholstery 2, not for credit
557311	Meatcutting 1
557319	Meatcutting 1, not for credit
557321	Meatcutting 2
557329	Meatcutting 2, not for credit
557411	Precision Production Work Study 1
557419	Precision Production Work Study 1, not for credit
557421	Precision Production Work Study 2
557429	Precision Production Work Study 2, not for credit
557511	Precision Production Work Experience 1

557519	Precision Production Work Experience 1, not for credit
557521	Precision Production Work Experience 2
557529	Precision Production Work Experience 2
558011	General Construction Trades 1
558019	General Construction Trades 1, not for credit
558021	General Construction Trades 2
558029	General Construction Trades 2, not for credit
558031	General Construction Trades 3
558039	General Construction Trades 3, not for credit
558111	Brickmasonry, Stonemasonry, And Tile Setting 1
558119	Brickmasonry, Stonemasonry, And Tile Setting 1, not for credit
558121	Brickmasonry, Stonemasonry, And Tile Setting 2
558129	Brickmasonry, Stonemasonry, And Tile Setting 2, not for credit
558211	Carpentry 1
558219	Carpentry 1, not for credit
558221	Carpentry 2
558229	Carpentry 2, not for credit
558311	Plumbing 1
558319	Plumbing 1, not for credit
558321	Plumbing 2
558329	Plumbing 2, not for credit
558411	Construction Trades Work Study 1
558419	Construction Trades Work Study 1, not for credit
558421	Construction Trades Work Study 2
558429	Construction Trades Work Study 2, not for credit
558511	Construction Trades Work Experience 1
558519	Construction Trades Work Experience 1, not for credit
558521	Construction Trades Work Experience 1
558529	Construction Trades Work Experience 2
559011	Auto Service 1
559019	Auto Service 1, not for credit
559021	Auto Service 2
559029	Auto Service 2, not for credit
559111	Auto Service, Work Experience 1
559119	Auto Service, Work Experience 1, not for credit
559121	Auto Service, Work Experience 2
559129	Auto Service, Work Experience 2, not for credit
562300	Special Education Language Arts
562301	Resource Language Arts/english 1
562302	Resource Language Arts/english 2
562303	Resource Language Arts/english 3
562304	Resource Language Arts/english 4
562309	Resource Language Arts/english, not for credit
562310	Special Education Reading
562311	Resource Reading
562319	Resource Reading, not taken for credit
562320	Special Education Writing
562321	Resource Writing
562329	Resource Writing, not for credit

562700	Special Education Math
562701	Resource General Math
562709	Resource General Math, not for credit
562711	Resource Vocational Math
562719	Resource Vocational Math, not for credit
562721	Resource Consumer Math
562729	Resource Consumer Math, not for credit
563201	Resource Career Exploration/prevocational
563209	Resource Career Exploration/prevocational Skill, not for credit
563211	Resource Transition Skills
563219	Resource Transition Skills, not for credit
564000	Special Education General Science
564001	Resource General Science
564009	Resource General Science, not for credit
564500	Special Education Social Studies
564501	Resource Social Studies
564509	Resource Social Studies, not for credit
569001	General Tutorial Services
569009	General Tutorial Services, not for credit
569101	Resource Study Skills
569109	Resource Study Skills, not for credit
569201	School And Social Survival Skills
569209	School and Social Survival Skills, not for credit
569301	Resource Survival Skills
569309	Resource Survival Skills, not for credit
569401	Handicap Specific Support Services
569409	Handicap Specific Support Services, not for credit
600000	Uncodeable
600001	Undifferentiated Transfer Credits

Appendix L

Classification of Secondary School Courses, in Alphabetical Order

420113	Abnormal Psychology
060200	Accounting, Other
060211	Accounting/Business Management Careers -
070100	Accounting, Bookkeeping, and Related Programs, Other
070121	Accounting 1
070122	Accounting 2
070131	Accounting, College
400851	Acoustics
543001	Activities Of Daily And Family Living
543009	Activities of Daily and Family Living, not for
270200	Actuarial Sciences, Other
340121	Adaptive Physical Education (Multihandicapped)
340121	Adaptive Physical Education Nonregular program
340129	Adaptive Physical Education (Multihandicapped)
340129	Adaptive Physical Education Nonregular program
420731	Adjustment Psychology
420721	Adolescent Psychology
200117	Adult Roles and Functions
110232	Advanced PASCAL
110242	Advanced BASIC
110252	Advanced COBOL
231216	Advanced Reading & Study Skills
090200	Advertising, Other
090211	Advertising
500381	Aerobic Dance
490111	Aeronautics 1
490112	Aeronautics 2
140200	Aerospace, Aeronautical, and Astronautical
140211	Aerospace Materials
140221	Aerospace Engineering Design
280100	Aerospace Science (Air Force), Other
280111	Aerospace Education
280112	Aerospace Education 2
280113	Aerospace Education 3
280114	Aerospace Education 4
401011	Aerospace Science
500111	Aesthetics
050123	Africa and South America
050130	Africa and Middle East
450859	Africa, Middle East and Latin America
050122	African Area Studies
160200	African (Non-Semitic) Languages, Other
450858	African History
050231	Afro American Studies
010111	Agribusiness, Introduction
019900	Agribusiness and Agricultural Production, Other
010100	Agricultural Business and Management, Other
010121	Agricultural Business Operation
010151	Agricultural Mathematics

010161	Agricultural Microprocessing
010172	Agricultural Cooperative Education II
010200	Agricultural Mechanics, Other
010211	Agricultural Mechanics, General
010212	Agricultural Mechanics 2
010213	Agricultural Mechanics 3
010214	Agricultural Mechanics 4
010300	Agricultural Production, Other
010311	Agricultural Production, General
010400	Agricultural Products and Processing, Other
010411	Agricultural Products and Processing I
010412	Agricultural Products and Processing II
010421	Agricultural Products and Processing -
010500	Agricultural Services and Supplies, Other
010511	Agricultural Supplies Marketing
020100	Agricultural Sciences, Other General
020111	Agricultural Sciences, General
020121	Agricultural Occupations 1
020122	Agricultural Occupations 2
020123	Agricultural Occupations 3
020124	Agricultural Occupations 4
029900	Agricultural Sciences, Other
140300	Agricultural Engineering, Other
551311	Agricultural Mechanics 1
551319	Agricultural Mechanics 1, not for credit
551321	Agricultural Mechanics 2
551329	Agricultural Mechanics 2, not for credit
551411	Agricultural Work Study
551419	Agricultural Work Study, not for credit
551511	Agricultural Work Experience
551519	Agricultural Work Experience, not for credit
010171	Agriculture Cooperatives
010181	Agriculture, Independent Study
010312	Agriculture Technology 1
010313	Agriculture Technology 2
020411	Agronomy
470211	Air Conditioning, Refrigeration, and Heating
470212	Air Conditioning, Refrigeration, and Heating, Advanced
470213	Air Conditioning, Refrigeration and Heating 3
490100	Air Transportation, Other
490131	Air Travel Service Occupations
470691	Aircraft Sheetmetal 1
470692	Aircraft Sheetmetal 2
490141	Aircraft Parts Management 1
490142	Aircraft Parts Management 2
470661	Airframes 1
470662	Airframes 2
270402	Algebra 1, Part 1
270403	Algebra 1, Part 2

270404	Algebra 1
270405	Algebra 2
270410	Algebra 3
270414	Algebra and Trigonometry
270415	Algebra and Analytic Geometry
179900	Allied Health, Other
450818	America Since 1945
050104	America's People and Problems
050102	American Studies, Basic
050103	American Studies, General
050105	American Studies, Honors
050108	American West
230711	American Literature
450609	American Labor History
450809	American History, Basic
450810	American History
450814	American History, Advanced Placement
450822	American Inquiries
450824	American Wars, Causes and Effects
451004	American Government
451011	American Foreign Policy
451013	American Heritage, Honors
451016	American Government and Economics, Basic
451017	American Government and Economics
451018	American Government and Economics, Honors
451111	American Social Problems, Introduction
451021	Americanism vs Communism
451022	Americanism vs Communism, Honors
160221	Amharic 1 (Ethiopian)
160222	Amharic 2 (Ethiopian)
270416	Analysis, Introductory
270412	Analytic Geometry
260631	Anatomy
450845	Ancient and Classical World
450846	Ancient Greek History
450848	Ancient History and Middle Ages
050110	Anglo America
010321	Animal Production
010521	Animal Grooming
020200	Animal Sciences, Other
020211	Animal Sciences 1
020212	Animal Sciences 2
260741	Animal Behavior
551111	Animal Care 1
551119	Animal Care 1, not for credit
551121	Animal Care 2
551129	Animal Care 2, not for credit
450200	Anthropology, Other
450211	Anthropology

450231	Anthropology, Myth and Magic
080100	Apparel and Accessories Marketing, Other
470131	Appliance Repair 1
470132	Appliance Repair 2
270300	Applied Mathematics, Other
490341	Aquatic Occupations
360161	Aquatics
161115	Arabic 1
161116	Arabic 2
161117	Arabic 3
161118	Arabic 4
450300	Archaeology, Other
450311	Archaeology
040221	Architectural Theory
140400	Architectural Engineering, Other
150100	Architectural Technologies, Other
480121	Architectural Drawing 1
480122	Architectural Drawing 2
480123	Architectural Drawing 3
480124	Architectural Drawing 4
040100	Architecture and Environmental Design, Other
040200	Architecture, Other
040211	Architecture, Introduction
040212	Architecture, Advanced
049900	Architecture and Environmental Design, Other
250200	Archival Science, Other
050100	Area Studies, Other
050101	Area Studies
059900	Area and Ethnic Studies, Other
280311	Army Leadership Development, Introduction
280312	Army Intermediate Leadership Development
280313	Army Applied Leadership Development
280314	Army Advanced Leadership Development
500950	Arranging
500703	Art, General
500704	Art 1
500705	Art 2
500706	Art 3
500707	Art 4
500708	Art 1, Independent Study
500709	Art 2, Independent Study
500711	Art Services 10
500712	Art Services 11
500713	Art Services 12
500726	Art History and Appreciation
500732	Art As A Multicultural Study
230861	Arthurian Legend
110151	Artificial Intelligence
500730	Artist in Residence Program

050129	Asia, Africa and Mideast
050124	Asian and African Cultural Studies, Basic
050125	Asian and African Cultural Studies, General
050126	Asian and African Cultural Studies, Honors
050127	Asian Studies
450865	Asian History, Modern
160300	Asiatic Languages, Other
500722	Assemblage
400200	Astronomy, Other
400211	Astronomy
400300	Astrophysics, Other
400400	Atmospheric Sciences and Meteorology, Other
150311	Audio Electronics
180100	Audiology and Speech Pathology, Other
081211	Auto Parts Merchandising
470621	Auto Mechanics 1
470622	Auto Mechanics 2
470623	Auto Mechanics 3
470624	Auto Mechanics - Cooperative Education 1
470625	Auto Mechanics - Cooperative Education 2
470631	Auto Body 1
470632	Auto Body 2
470633	Auto Body 3
470641	Auto Service 1
470642	Auto Service 2
480331	Auto Upholstery
559011	Auto Service 1
559019	Auto Service 1, not for credit
559021	Auto Service 2
559029	Auto Service 2, not for credit
559111	Auto Service, Work Experience 1
559119	Auto Service, Work Experience 1, not for credit
559121	Auto Service, Work Experience 2
559129	Auto Service, Work Experience 2, not for credit
081221	Automotive Professional Training
150811	Automotive Design & Technology
470671	Aviation Powerplant 1
470672	Aviation Powerplant 2
470673	Aviation Powerplant 3
470674	Aviation Powerplant 4
470681	Aviation Quality Control 1
470682	Aviation Quality Control 2
490121	Aviation Technology 1
490122	Aviation Technology 2
490123	Aviation Technology 3
490124	Aviation Technology 4
200431	Baking
500351	Ballet and Jazz for Beginners 9
500352	Ballet and Jazz for Beginners 10

500353	Ballet and Jazz for Beginners 11
500354	Ballet and Jazz for Beginners 12
160400	Balto-Slavic Languages, Other
500903	Band 7
500904	Band 7, Advanced
500905	Band 8
500906	Band 8, Advanced
500907	Band 9
500908	Band 9, Advanced
500909	Band, Concert
500910	Band, Marching
500911	Band, Symphonic
070211	Bank Teller
070231	Bank Proof Operator
070241	Bank Data Entry Occupations
060300	Banking and Finance, Other
070200	Banking and Related Financial Programs, Other
070201	Banking & Financial Careers
070251	Banking and Financial Careers - Cooperative
120421	Barbering 1
120422	Barbering 2
120423	Barbering 3
180200	Basic Clinical Health Sciences, Other
270601	Basic Math 1
270602	Basic Math 2
270603	Basic Math 3
270604	Basic Math 4
320100	Basic Skills, Career and Employment, Other
320200	Basic Skills, General, Other
110241	BASIC, Introduction
230125	Bible as Literature
390200	Bible Studies, Other
390100	Biblical Languages, Other
500729	Bicultural Art
470434	Bicycle Repair
130200	Bilingual/Bicultural Education, Other
480241	Bindery
260200	Biochemistry and Biophysics, Other
260211	Biochemistry
140500	Bioengineering and Biomedical Engineering, Other
230136	Biography
300100	Biological and Physical Sciences, Other
410100	Biological Technologies, Other
260100	Biology, Other General
260121	Biology, Basic 1
260122	Biology, Basic 2
260131	Biology, General 1
260132	Biology, General 2
260141	Biology, Honors 1

260142	Biology, Advanced
260181	Biology Seminar
260171	Biopsychology
230721	Black Literature
500727	Black Fine Arts
480141	Blueprint Reading
490321	Boat Building
070111	Bookkeeping 1
070112	Bookkeeping 2
070141	Bookkeeping and Accounting 1
070142	Bookkeeping and Accounting 2
260300	Botany, Other
260311	Botany
090821	Braille Communications
500922	Brass and Percussion Class
460100	Brickmasonry, Stonemasonry, and Tile Setting,Other
558111	Brickmasonry, Stonemasonry, And Tile Setting 1
558119	Brickmasonry, Stonemasonry, And Tile Setting 1, not for credit
558121	Brickmasonry, Stonemasonry, And Tile Setting 2
558129	Brickmasonry, Stonemasonry, And Tile Setting 2, not for credit
230811	British Literature Survey
090611	Broadcast Journalism
100141	Broadcast Management 1
100142	Broadcast Management 2
090711	Broadcasting, Introduction
100143	Broadcasting Practicum
120521	Building & Grounds Maintenance
120522	Building & Grounds Maintenance
120523	Building & Grounds Maintenance
350121	Building Human Relationships
460411	Building Construction 1
460412	Building Construction 2
460413	Building Construction 3
460431	Building Maintenance
460451	Building Construction - Cooperative Education 1
460452	Building Construction - Cooperative Education 2
490214	Bus Driver/Chauffeur
060100	Business and Management, Other General
060111	Business Introduction
060121	Business Law
060131	Business, Independent Study
060141	Business Education, Cooperative
060400	Business Administration and Management, Other
060411	Business Organization and Management
060500	Business Economics, Other
060511	Business Economics
069900	Business and Management, Other
070171	Business Mathematics 1
070172	Business Mathematics 2

070300	Business Data Processing and Related Programs, Other
070321	Business Data Processing 1
070322	Business Data Processing 2
070331	Business Computer Programming 1
070332	Business Computer Programming 2
070411	Business English 1
070412	Business English 2
070413	Business English 3
070414	Business English 4
079900	Business and Office, Other
080200	Business and Personal Services Marketing, Other
190200	Business Home Economics, Other
470151	Business Machine Repair
552211	Business Word Study 1
552221	Business Work Study 2
552311	Business Work Experience 1
552321	Business Work Experience 2
480731	Cabinetmaking 1
480732	Cabinetmaking 2
100181	Cable Television
270418	Calculus and Analytic Geometry
270419	Calculus
270420	Calculus, Advanced Placement
500725	Calligraphy
050140	Canadian Area Studies
160311	Cantonese 1
160312	Cantonese 2
160313	Cantonese 3
160314	Cantonese 4
320102	Career Preparation
320103	Career Exploration
550101	Career Exploration
550109	Career Exploration, not for credit
090612	Careers in Radio/Television Broadcasting
460200	Carpentry, Other
460211	Carpentry 1
460212	Carpentry 2
460213	Carpentry 3
558211	Carpentry 1
558219	Carpentry 1, not for credit
558221	Carpentry 2
558229	Carpentry 2, not for credit
142611	Cartography
500718	Cartooning
080751	Cashier Checker Training
200451	Catering
380201	Catholicism, Foundations
260400	Cell and Molecular Biology, Other
260411	Cell Biology

170522	Central Service Technician
140600	Ceramic Engineering, Other
500261	Ceramics 7
500262	Ceramics 8
500263	Ceramics 9
500264	Ceramics 10
500265	Ceramics 11
500266	Ceramics 12
200441	Chef
140700	Chemical Engineering, Other
150621	Chemical Manufacturing Technology
170321	Chemical Technology 1
170322	Chemical Technology 2
170581	Chemistry for Health Science
400131	Chemistry and Physics Laboratory Techniques
400500	Chemistry, Other
400511	Chemistry, Introductory
400521	Chemistry 1
400522	Chemistry 2
400561	Chemistry, Independent Study
200121	Child Development 8
200122	Child Development 1
200123	Child Development 2
200124	Child Development 3
200125	Child Development 4
200200	Child Care and Guidance Management and Services, Other
200211	Child Care Services
200221	Child Care Aide
200231	Child Care Management
200261	Child Care - Cooperative Education 1
200262	Child Care - Cooperative Education 2
420711	Child Psychology
554111	Child Development 1
554119	Child Development 1, not for credit
554121	Child Development 2
554129	Child Development 2, not for credit
230155	Children's Literature & Fantasy
161351	Chinese for Native Speakers 1
161352	Chinese for Native Speakers 2
161353	Chinese for Native Speakers 3
180300	Chiropractic, Other
500935	Chorus 7
500936	Chorus 7. Advanced
500937	Chorus 8
500938	Chorus 8, Advanced
500939	Chorus 9
500940	Chorus 9, Advanced
500941	Chorus 10
500942	Chorus 10, Advanced

500943	Chorus 11
500944	Chorus 11, Advanced
500945	Chorus 12
500946	Chorus 12, Advanced
330100	Citizenship/Civic Activities, Other
040300	City, Community, and Regional Planning, Other
451001	Civics
451024	Civics, Honors
140800	Civil Engineering, Other
150200	Civil Technologies, Other
150221	Civil Engineering Technician
280121	Civil Air Patrol
450825	Civil War
450826	Civil War, Reconstruction and Industrialism
160631	Classical Greek 1
160632	Classical Greek 2
160633	Classical Greek 3
160634	Classical Greek 4
230200	Classics, Other
300200	Clinical Pastoral Care, Other
420200	Clinical Psychology, Other
200131	Clothing 7
200132	Clothing 8
200133	Clothing 1
200134	Clothing 2
200135	Clothing 3
200136	Clothing 4
200300	Clothing, Apparel, and Textiles Management, Production, and Services,
200311	Clothing Occupations 1
200312	Clothing Occupations 2
200313	Clothing Occupations 3
200314	Clothing Occupations - Cooperative Education I
200315	Clothing Occupations - Cooperative Education 2
200321	Clothing Maintenance Aide
200391	Clothing Production Management
554211	Clothing And Textiles 1
554219	Clothing and Textiles 1, not for credit
554221	Clothing And Textiles 2
554229	Clothing and Textiles 2, not for credit
280200	Coast Guard Science, Other
110251	COBOL, Introduction
420300	Cognitive Psychology, Other
300112	College Pre-Science Skills
550401	Combined Vocational/academic Preparation
550409	Combined Vocational/academic Preparation, not for
200331	Commercial Garment and Apparel Construction
480211	Commercial Art 1
480212	Commercial Art 2
480213	Commercial Art, Cooperative

480214	Commercial Art 3
100100	Communication Technologies, Other
090100	Communications, Other General
090300	Communications Research, Other
099900	Communications, Other
100121	Communications Media Production
451023	Communism and Its Growth
170421	Community Health
330151	Community Service
420400	Community Psychology, Other
440200	Community Services, Other
200641	Companion to the Aged
050117	Comparative World Cultures
230300	Comparative Literature, Other
230311	Comparative Literature
260771	Comparative Embryology
380206	Comparative Religion
420500	Comparative Psychology, Other
450221	Comparative Cultural Patterns
451019	Comparative Political Systems, Basic
451020	Comparative World Governments
230400	Composition, Other
230401	Composition, Expository
200118	Comprehensive Consumer and Homemaking Home
080811	Computer Sales Representative
110100	Computer and Information Sciences, Other General
110111	Computer Appreciation
110121	Computer Mathematics 1
110122	Computer Mathematics 2
110131	Computer Applications
110132	Computer Applications, Independent Study
110141	Computer Science, Advanced Placement
110200	Computer Programming, Other
110211	Computer Programming 1
110212	Computer Programming 2
110213	Computer Programming 3
110321	Computer Programming - Cooperative Education
119900	Computer and Information Sciences, Other
140900	Computer Engineering, Other
150431	Computer-Assisted Design/Drafting (CAD)
500811	Computer Graphics Design
070311	Computers In Business
460131	Concrete Technician
360171	Conditioning and Athletics
500951	Conducting
030200	Conservation and Regulation, Other
030211	Conservation and Regulation
469900	Construction Trades, Other
558411	Construction Trades Work Study 1

558419	Construction Trades Work Study 1, not for credit
558421	Construction Trades Work Study 2
558429	Construction Trades Work Study 2, not for credit
558511	Construction Trades Work Experience 1
558519	Construction Trades Work Experience 1, not for credit
558521	Construction Trades Work Experience 1
558529	Construction Trades Work Experience 2
060331	Consumer Lending
129900	Consumer, Personal, and Miscellaneous Services, Other
200100	Consumer and Homemaking Home Economics, Other
200141	Consumer Education
200142	Consumer Education 2
200651	Consumer Aide
270114	Consumer Mathematics
400551	Consumer Chemistry
450603	Consumer Economics
470651	Consumer Auto
451010	Contemporary World Affairs
451014	Contemporary American Political Issues
451015	Contemporary American Political Issues, Honors
451033	Contemporary Issues, Basic Skills
320106	Cooperative Education 1
320107	Cooperative Education 2
370121	Coping with Personal Problems
480261	Copy Editing
120411	Cosmetology
120412	Cosmetology 2
120413	Cosmetology 3
120414	Cosmetology - Cooperative Education 2
120415	Cosmetology - Cooperative Education 2
556111	Cosmetology/barber 1
556119	Cosmetology/barber 1, not for credit
556121	Cosmetology/barber 2
556129	Cosmetology/barber 2, not for credit
420600	Counseling Psychology, Other
070662	Court Reporter
500200	Crafts, Other
500211	Crafts 7
500212	Crafts 8
500213	Crafts 9
500214	Crafts 10
500215	Crafts 11
500216	Crafts 12
500221	Crafts 11, Advanced
500222	Crafts 12, Advanced
230500	Creative Writing, Other
230511	Creative Writing 10
230512	Creative Writing 11
230513	Creative Writing 12

230521	Creative Writing, Independent Study
430100	Criminal Justice, Other
450400	Criminology, Other
010331	Crop Production
090831	Cryptography
450241	Cultural Anthropology, Research
200126	Current Issues in Child Development
130300	Curriculum and Instruction, Other
200611	Custodial Services
556211	Custodial And Housekeeping Services 1
556219	Custodial and Housekeeping Services 1, not for credit
556221	Custodial And Housekeeping Services 2
556229	Custodial and Housekeeping Services 2, not for credit
200341	Custom Apparel Construction
200351	Custom Tailoring and Alteration
200551	Custom Drapery and Window Treatment Design
200561	Custom Slipcovering and Upholstering
160431	Czech 1
160432	Czech 2
160433	Czech 3
020241	Dairy Production
500300	Dance, Other
500331	Dance 9, Advanced
500332	Dance 10, Advanced
500333	Dance 11, Advanced
500334	Dance 12, Advanced
070351	Data Entry Operator 1
070352	Data Entry Operator 2
110300	Data Processing, Other
110311	Data Processing, Introduction
110312	Data Processing, Intermediate
110313	Data Processing, Advanced
230149	Death
451161	Death and Dying
231031	Debate Practicum Contract
451012	Decision Making in a Crisis
500231	Decorator Crafts
450500	Demography, Other
170100	Dental Services, Other
170111	Dental Assistant 1
170112	Dental Assistant 2
170121	Dental Assistant, Cooperative
170131	Dental Technology 1
170132	Dental Technology 2
180400	Dentistry, Other
500400	Design, Other
050121	Developing Nations
420700	Developmental Psychology, Other
170200	Diagnostic and Treatment Services, Other

470321	Diesel Mechanics
200461	Dietetic Aide
080711	Distributive Education 1
080712	Distributive Education 2
080713	Distributive Education 3
080721	Distributive Education 1, Cooperative
080722	Distributive Education 2, Cooperative
080771	Distributive Education, Independent Study
480100	Drafting, Other
480151	Drafting 1, Cooperative
480152	Drafting 2, Cooperative
230127	Drama, Introduction
500551	Drama, History
500561	Drama, Independent Study
500500	Dramatic Arts, Other
500714	Drawing
360141	Drill Team
340151	Driver Education, Classroom
340152	Driver Education, Practice
340141	Drugs Alcohol and Tobacco
120111	Dry Cleaning 1
120112	Dry Cleaning 2
120100	Drycleaning and Laundering Services, Other
160501	Dutch 1
160502	Dutch 2
160503	Dutch 3
450843	Early Western Civilization
400611	Earth Science
400621	Earth Science, College Preparatory
380208	Eastern Religious Thought
450863	Eastern Civilization
260611	Ecology
450708	Economic and Political Geography
050241	Economics of Afro Americans
450600	Economics, Other
450601	Economics, Theory
450602	Economics and Economic Problems
450610	Economics, Analysis and Criticism
450611	Economics, College
130100	Education, Other General
130400	Education Administration, Other
139900	Education, Other
130500	Educational Media, Other
420321	Educational Psychology
170221	EKG Technician
451009	Elections, Politics and Morality, Honors
460321	Electric Power and Communications Lineworker
141000	Electrical, Electronics, and Communications
150300	Electrical and Electronic Technologies, Other

150321	Electrical Technology
150341	Electrical/Electronics Engineering Technician
460300	Electrical and Power Transmission Installation, Other
470100	Electrical and Electronics Equipment Repair, Other
010251	Electricity and Electronics, Agricultural
210113	Electricity 1
210114	Electricity 2
210119	Electricity and Electronics, Introduction
210120	Electricity and Electronics, Advanced
210130	Electricity - Cooperative Education 1
210131	Electricity - Cooperative Education 2
210150	Electricity/Electronics - Cooperative
210151	Electricity/Electronics - Cooperative
400841	Electricity and Electronics Science
150400	Electromechanical Instrumentation and Maintenance
150411	Electromechanical Technology 1
150412	Electromechanical Technology 2
150331	Electronic Technology 1
150332	Electronic Technology 2
480251	Electronic Composition
500925	Electronic Music, Introduction
150333	Electronics Fabrication
210115	Electronics 1
210116	Electronics 2
210117	Electronics 3
210118	Electronics 4
210140	Electronics - Cooperative Education 1
210141	Electronics - Cooperative Education 2
180500	Emergency/Disaster Science, Other
500241	Enameling
300631	Energy and Environment
450608	Energy Education
140100	Engineering, Other General
141100	Engineering Mechanics, Other
141200	Engineering Related, Other
141300	Engineering Science, Other
149900	Engineering, Other
159900	Engineering and Engineering-Related Technologies, Other
300300	Engineering and Other DiscIplines, Other
300311	Engineering Concepts
480131	Engineering Drawing 1
480132	Engineering Drawing 2
160121	English as a Second Language 1
160122	English as a Second Language 2
160123	English as a Second Language 3
160124	English as a Second Language, Skills Lab
230100	English, Other General
230101	English 7
230102	English 7, Honors

230103	English 8, Below Grade Level
230104	English 8
230105	English 8, Honors
230106	English 1, Below Grade Level
230107	English 1
230108	English 1, Honors
230109	English 2, Below Grade Level
230110	English 2
230111	English 2, Honors
230112	English 3, Below Grade Level
230113	English 3
230114	English 3, Honors
230115	English 4, Below Grade Level
230116	English 4
230117	English 4, Honors
230152	English, Real Life Problem Solving
2301610	English Skills 1 for Visually Impaired
2301620	English Skills 2 for Visually Impaired
2301630	English Skills 3 for Visually Impaired
2301640	English Skills 4 for Visually Impaired
450849	English History
450850	English History, Honors
500926	Ensemble, Instrumental
081121	Entertainment Park/Tourism - Cooperative
120200	Entertainment Services, Other
080300	Entrepreneurship, Other
030212	Environmental Management 1
030213	Environmental Management 2
030221	Environmental Management - Cooperative
040400	Environmental Design, Other
141400	Environmental Health Engineering, Other
150500	Environmental Control Technologies, Other
150511	Environmental Control Technologies
300621	Environmental Science
180600	Epidemiology, Other
380141	Epistemics
380121	Ethics
050200	Ethnic Studies, Other
050221	Ethnic and Family Heritage
230141	Ethnic Literature
500361	Ethnic Dance
500731	Ethnic Art History
230412	Etymology
050118	European Culture Studies, Basic
050119	European Culture Studies, General
050120	European Culture Studies, Honors
450853	European History, Mid-Nineteenth Through
450854	European History, Twentieth Century
450855	European History, Advanced Readings

450856	European History, Modern, Advanced Placement
130600	Evaluation and Research, Other
200621	Executive Housekeeping
510101	Executive Internship
510102	Executive Internship 2
360192	Experiential Outdoor Education
420800	Experimental Psychology, Other
190300	Family and Community Services, Other
190400	Family/Consumer Resource Management, Other
200161	Family Health 1
200162	Family Health 2
200171	Family Relations
450864	Far East, History
010131	Farm and Ranch Management
010241	Farm Construction
080111	Fashion Merchandising
080121	Fashion Design and Illustration
080131	Fashion Merchandising - Cooperative
080132	Fashion Merchandising - Cooperative
200371	Fashion and Fabric Coordination
020521	Fertilizers and Chemicals
260151	Field Biology
450710	Field Geography, Honors
450604	Filing Your Income Taxes
100151	Film Making and Production 1
100152	Film Making and Production 2
500600	Film Arts, Other
500611	Film Study
060311	Financial Careers
070221	Financial Mathematics
080400	Financial Services Marketing, Other
500700	Fine Arts, Other
500701	Fine Arts 7
500702	Fine Arts 8
160451	Finnish 1
160452	Finnish 2
160453	Finnish 3
160454	Finnish 4
430200	Fire Protection, Other
430211	Fire Fighting Practices
430221	Fire Safety Education
170211	First Aid
020281	Fish Production
030300	Fishing and Fisheries, Other
460422	Flooring Installation
080511	Floral Sales
200521	Floral Design
010621	Floriculture
080500	Floristry, Farm and Garden Supplies Marketing, Other

500964	Folk Music, Ethnic
230741	Folklore, American
020300	Food Sciences, Other
080600	Food Marketing, Other
080611	Food Marketing/Distribution - Overview
080621	Food Marketing - Cooperative Education 1
080622	Food Marketing - Cooperative Education 2
190500	Food Sciences and Human Nutrition, Other
200400	Food Production, Management and Services, Other
200411	Food Service Training
200412	Food Service Training 2
200413	Food Services/Restaurant Management
200421	Food Service Cooperative Training
200471	Food Testing
470181	Food Processing Machine Maintenance Technician/
554311	Food And Nutrition 1
554319	Food and Nutrition 1, not for credit
554321	Food And Nutrition 2
554329	Food and Nutrition 2, not for credit
556311	Food Services 1
556319	Food Services 1, not for credit
556321	Food Services 2
556329	Food Services 2, not for credit
200181	Foods and Nutrition 7
200182	Foods and Nutrition 8
200183	Foods 1
200184	Foods 2
200185	Foods 3
200186	Foods 4
160100	Foreign Languages, Multiple Emphasis, Other
160111	Foreign Language, Exploratory
160336	Foreign Language Contract, Japanese
160427	Foreign Language Contract, Russian
160519	Foreign Language Contract, German
160909	Foreign Language Contract, French
160919	Foreign Language Contract, Italian
160925	Foreign Language Contract, Latin
160939	Foreign Language Contract, Spanish
161119	Foreign Language Contract - Arabic
169900	Foreign Languages, Other
030400	Forestry Production and Processing, Other
030500	Forestry and Related Sciences, Other
030511	Forestry Science 1
030512	Forestry Science 2
030521	Forestry Occupations - Work Experience
490211	Forklift Operator
110221	FORTRAN, Introduction
200241	Foster Care and Family Care
480551	Foundry 1

480552	Foundry 2
451006	Framework of the Constitution
160901	French 7
160902	French 8
160903	French 1
160904	French 2
160905	French 3
160906	French 4
160907	French, Advanced Placement
160908	French Field-Based Experience
160910	French, Conversational
161361	French for Native Speakers 1
161362	French for Native Speakers 2
161363	French for Native Speakers 3
161364	French for Native Speakers 4
450851	French Revolution, Honors
010681	Fruit and Vegetable Production
231311	Functional English 1
231312	Functional English 2
231313	Functional English 3
231314	Functional English 4
541009	Functional Math Skills, not for credit
541101	Functional Consumer Math
541109	Functional Consumer Math, not for credit
541201	Functional Vocational Math
541209	Functional Vocational Math, not for credit
542011	Functional Language Arts 1
542019	Functional Language Arts 1, not for credit
542021	Functional Language Arts 2
542029	Functional Language Arts 2, not for credit
542031	Functional Language Arts 3
542039	Functional Language Arts 3, not for credit
542041	Functional Language Arts 4
542049	Functional Language Arts 4, not for credit
542051	Functional Vocational English
542059	Functional Vocational English, not for credit
542101	Functional Reading
542109	Functional Reading, not for credit
542201	Functional Oral Communication
542209	Functional Oral Communication, not for credit
542301	Functional Writing
542309	Functional Writing, not for credit
542401	Functional Academics
542409	Functional Academics, not for credit
543201	Functional Leisure And Recreational Skills
543209	Functional Leisure and Recreational Skills, not
543301	Functional Health
543309	Functional Health, not for credit
543401	Functional Transition Skills

543409	Functional Transition Skills, not for credit
544001	Functional Science
544009	Functional Science, not for credit
544501	Functional Social Skills
544509	Functional Social Studies, not for credit
120300	Funeral Services, Other
480721	Furniture Refinishing
300611	Futuristics
080700	General Marketing, Other
120511	General Services Occupations 1
120512	General Services Occupations 2
120513	General Services Occupations 3
120514	General Services Occupations 4
541001	General Math Skills
550001	General Prevocational Preparation
550009	General Prevocational Preparation, not for credit
550201	General Work-study/experience
550209	General Work-study/experience, not for credit
550301	General Work Experience
550309	General Work Experience, not for credit
551011	General Agriculture 1
551019	General Agriculture 1, not for credit
551021	General Agriculture 2
551029	General Agriculture 2, not for credit
551031	General Agriculture 3
551039	General Agriculture 3, not for credit
552011	General Office Practice 1
552019	General Office Practice 1, not for credit
552021	General Office Practice 2
552031	General Office Practice 3
553011	General Health Occupations 1
553019	General Health Occupations 1, not for credit
553021	General Health Occupations 2
553029	General Health Occupations 2, not for credit
553031	General Health Occupations 3
553039	General Health Occupations 3, not for credit
554011	General Home Economics 1
554019	General Home Economics 1, not for credit
554021	General Home Economics 2
554029	General Home Economics 2, not for credit
554031	General Home Economics 3
554039	General Home Economics 3, not for credit
555011	General Industrial Arts 1
555019	General Industrial Arts 1, not for credit
555021	General Industrial Arts 2
555029	General Industrial Arts 2, not for credit
555031	General Industrial Arts 3
555039	General Industrial Arts 3, not for credit
558011	General Construction Trades 1

558019	General Construction Trades 1, not for credit
558021	General Construction Trades 2
558029	General Construction Trades 2, not for credit
558031	General Construction Trades 3
558039	General Construction Trades 3, not for credit
569001	General Tutorial Services
569009	General Tutorial Services, not for credit
260161	Genetics
450700	Geography, Other
450701	Geography 8
450702	Geography, United States
450703	Geography, North American
450705	Geography, Western Hemisphere and Africa
450706	Geography, Eastern Hemisphere
141500	Geological Engineering, Other
400600	Geological Sciences, Other
400631	Geology
400632	Geology - Field Studies
270406	Geometry, Plane
270407	Geometry, Solid
270408	Geometry, Plane and Solid
270409	Geometry, Informal
141600	Geophysical Engineering, Other
200642	Geriatrics 2
200643	Geriatrics - Cooperative Education 1
200644	Geriatrics - Cooperative Education 2
160511	German 7
160512	German 8
160513	German 1
160514	German 2
160515	German 3
160516	German 4
160517	German, Advanced Placement
160518	German Field-Based Experience
160500	Germanic Languages, Other
240141	Gifted and Talented Program
050138	Global Education
451003	Government, Basic
451026	Government Internship
230406	Grammar 7
230407	Grammar 8
230408	Grammar 9
230409	Grammar 10
230410	Grammar 11
230411	Grammar 12
480200	Graphic and Printing Communications, Other
480221	Graphic Arts 1
480222	Graphic Arts 2
480223	Graphic Arts 3

480224	Graphic Arts 4
500411	Graphic Design
500800	Graphic Arts Technology, Other
557111	Graphic And Printing Communications 1
557119	Graphic And Printing Communications 1, not for credit
557121	Graphic And Printing Communications 2,
557129	Graphic And Printing Communications 2, not for credit
160600	Greek, Other
010641	Greenhouse Management
080612	Grocery Management
500927	Guitar, Beginning
500928	Guitar, Intermediate
500929	Guitar, Advanced
360131	Gymnastics
500930	Handbells
569401	Handicap Specific Support Services
569409	Handicap Specific Support Services, not for credit
549401	Handicapped Developmental Support Services
549409	Handicapped Developmental Support Services, not
230413	Handwriting
500949	Harmony and Composition
050281	Hawaiian
050291	Hawaiian Culture Studies, Modern
160341	Hawaiian 1
160342	Hawaiian 2
160343	Hawaiian 3
160344	Hawaiian 4
160345	Hawaiian Language and Culture
170511	Health Occupations 1
170521	Health Occupations 2
170591	Health Occupations, Independent Study
170592	Health Occupations - Cooperative Education 1
170593	Health Occupations - Cooperative Education 2
180700	Health Sciences Administration, Other
189900	Health Sciences, Other
340100	Health-Related Activities, Other
340131	Health 7
340132	Health 8
340133	Health 9
340134	Health 10
340135	Health 11
340136	Health 12
553111	Health Occupations Work Study 1
553119	Health Occupations Work Study 1, not for credit
553121	Health Occupations Work Study 2
553129	Health Occupations Work Study 2, not for credit
553211	Health Occupations Work Experience 1
553219	Health Occupations Work Experience 1, not for credit
553221	Health Occupations Work Experience 2

553229	Health Occupations Work Experience 2
470200	Heating, Air Conditioning, and Refrigeration
490213	Heavy Vehicle Operation/Earth Moving Equipment
161111	Hebrew 1
161112	Hebrew 2
161113	Hebrew 3
161114	Hebrew 4
180800	Hematology, Other
230147	Heroes
450823	Historic Events, United States
421011	Historical Personalities and Ideas
450869	Historical Research
050128	History of China
050136	History of Russia
450800	History, Other
450801	History and Geography 7
080800	Home and Office Products Marketing, Other
170411	Home Health Aide
190100	Home Economics, Other General
199900	Home Economics, Other
200111	Home Economics 7
200112	Home Economics 8
200113	Home Economics 1
200114	Home Economics 2
200115	Home Economics 3
200116	Home Economics 4
200151	Home Economics Occupations 1, Exploratory
200152	Home Economics Occupations 2, Exploratory
200153	Home Economics Laboratory Assistant
200154	Home Economics Leadership
200191	Home Management 1
200192	Home Management 2
200193	Home Economics - Cooperative Education 1
200194	Home Economics - Cooperative Education 2
200500	Home Furnishings and Equipment Management, Production, and Services,
200531	Home Decorating
200541	Home Furnishings Aide
200571	Home-Service Assisting 1
200572	Home Service Assisting 2
200573	Home Service Asst - Cooperative Education 1
200574	Home Service Asst - Cooperative Education 2
460441	Home Maintenance and Repair
554411	Home Economics Work Study 1
554419	Home Economics Work Study 1, not for credit
554421	Home Economics Work Study 2
554429	Home Economics Work Study 2, not for credit
554511	Home Economics Work Experience 1
554519	Home Economics Work Experience 1, not for credit
554521	Home Economics Work Experience 2

554529	Home Economics Work Experience 2, not for credit
200631	Homemaker's Aide
020261	Horse Production
020262	Horseshoeing/Farrier Training
010661	Horticultural Mechanics I
010662	Horticultural Mechanics II
010600	Horticulture, Other
010611	Horticulture
080900	Hospitality and Recreation Marketing, Other
080921	Hospitality Sales 1
080922	Hospitality Sales 2
060711	Hotel and Motel Management
060712	Hotel and Motel Training
460311	Housewiring 1
460312	Housewiring 2
200511	Housing and Interior Design 1
200512	Housing and Interior Design 2
060600	Human Resources Development, Other
190600	Human Environment and Housing, Other
440711	Human Services
450709	Human and Cultural Geography
421021	Humanistic Psychology
300400	Humanities and Social Sciences, Other
300411	Humanities
300421	Humanities, European
300431	Humanities, American
300441	Humanities, African
300451	Humanities, Near East and Far East
230135	Humor
470521	Hydraulics and Pneumatics
500521	Improvisation and Mime
240131	Independent Study
230751	Indian Literature
050251	Indians of North America
160700	Indic Languages, Other
190700	Individual and Family Development, Other
451007	Individual vs State
120531	Industrial Maintenance/Mechanics 1
120532	Industrial Maintenance/Mechanics 2
141700	Industrial Engineering, Other
150600	Industrial Production Technologies, Other
150601	Industrial Research & Development
150611	Industrial Production Technology 1
150612	Industrial Production Technology 2
210100	Industrial Arts, Other
210101	Industrial Arts 7
210102	Industrial Arts 8
210103	Industrial Arts 1
210104	Industrial Arts 2

210105	Industrial Arts 3
210106	Industrial Arts 4
210108	Industrial Production
210109	Industrial Occupations 1
210110	Industrial Occupations 2
210111	Industrial Cooperative Work Experience
210112	Industrial Cooperative Work Experience, Advanced
210125	Industrial Education Management Trainee
210126	Industrial Arts Research
420900	Industrial and Organizational Psychology, Other
470161	Industrial Electricity
470171	Industrial Electronics
470300	Industrial Equipment Maintenance and Repair, Other
470311	Industrial Mechanics 1
470312	Industrial Mechanics 2
470331	Industrial Maintenance Mechanics 1
470332	Industrial Maintenance Mechanics 2
210107	Industry and Technology
110400	Information Sciences and Systems, Other
060700	Institutional Management, Other
200600	Institutional, Home Management, and Supporting
200671	Institutional, Home Management Support Services -
470421	Instrument Maintenance and Repair
500921	Instrumental String Class
141211	Instrumentation Physics 1
141212	Instrumentation Physics 2
141213	Instrumentation Physics 3
141214	Instrumentation Physics 4 /Advanced Placement
150421	Instrumentation Technology
060800	Insurance and Risk Management, Other
060811	Insurance Careers
081000	Insurance Marketing, Other
450605	Insurance Theory
090121	Intercultural Communications
040500	Interior Design, Other
040511	Interior Design
200513	Interior Design Occupations
010700	International Agriculture, Other
060900	International Business Management, Other
130700	International and Comparative Education, Other
190800	International/Comparative Home Economics, Other
200187	International Foods
440300	International Public Service, Other
450612	International Economics
450900	International Relations, Other
450911	International Relations
450921	International Relations, Honors
450931	International Law
510103	International Careers Internship

230414	Interpersonal Communication
350100	Interpersonal Skills, Other
350111	Interpersonal Relationships
490411	Introduction to Transportation Industry
450606	Investment Economics
061000	Investments and Securities, Other
061011	Investments and Taxation
160800	Iranian Languages, Other
230123	Irish Literature
380217	Islam and the Koran
450862	Israel, History
160911	Italian 7
160912	Italian 8
160913	Italian 1
160914	Italian 2
160915	Italian 3
160916	Italian 4
160917	Italian, Advanced Placement
160918	Italian Field-Based Experience
161331	Italian for Native Speakers 1
161332	Italian for Native Speakers 2
161333	Italian for Native Speakers 3
160900	Italic Languages, Other
160331	Japanese 1
160332	Japanese 2
160333	Japanese 3
160334	Japanese 4
160335	Japanese 5
161341	Japanese for Native Speakers 1
161342	Japanese for Native Speakers 2
161343	Japanese for Native Speakers 3
500251	Jewelry 1
500252	Jewelry 2
500253	Jewelry 3
500254	Jewelry 4
050261	Jewish Historical Significance
090400	Journalism (Mass Communications), Other
090411	Journalism 1
090412	Journalism 2
090413	Journalism 3
090421	Journalism Investigations
380214	Judaism, Foundations
080321	Junior Achievement
070341	Key Punch Operator
070361	Keyboarding
160351	Korean 1
160352	Korean 2
160353	Korean 3
160354	Korean 4

160355	Korean 5
061100	Labor Industrial Relations, Other
170311	Laboratory Program 1
170312	Laboratory Program 2
040600	Landscape Architecture, Other
010631	Landscaping
010632	Landscaping, Advanced
500612	Language of the Cinema
050113	Latin America
160920	Latin 1
160921	Latin 2
160922	Latin 3
160923	Latin 4
160924	Latin, Advanced Placement
230321	Latin American Authors/Literature
450860	Latin American History
220100	Law, Other
220111	Law Fundamentals
220121	Law and You
430111	Law Enforcement
430121	Law Science
480311	Leatherwork 1
480312	Leatherwork 2
557211	Leatherwork And Upholstery 1,
557219	Leatherwork And Upholstery 1, not for credit
557221	Leatherwork And Upholstery 2
557229	Leatherwork And Upholstery 2, not for credit
480300	Leatherworking and Upholstering, Other
070661	Legal Office Procedures
070681	Legal/Medical Office Procedures
360100	Leisure and Recreational Activities, Other
239900	Letters, Other
240100	Liberal/General Studies, Other
240111	Liberal Studies
250100	Library and Archival Sciences, Other General
250111	Library Science
250300	Library Assisting, Other
250311	Library Assistant
250400	Library Science, Other
259900	Library and Archival Sciences, Other
269900	Life Sciences, Other
340171	Life Saving
500724	Life Drawing
500431	Lighting Fundamentals, Theater
270417	Linear Algebra
230600	Linguistics (includes Phonetics, Semantics, and
230611	Linguistics
090431	Literary Magazine
230122	Literature, Contemporary

230140	Literature of Human Values
230700	Literature, American, Other
230800	Literature, English, Other
020221	Livestock 9
020222	Livestock 10
380131	Logic
110261	LOGO, Introduction
210121	Machine Shop 1
210122	Machine Shop 2
210123	Machine Shop 3
210124	Machine Shop 4
061200	Management Information Systems, Other
061300	Management Science, Other
160321	Mandarin 1
160322	Mandarin 2
160323	Mandarin 3
160324	Mandarin 4
160325	Mandarin 5
030711	Marine Management/Oceanography 1
030712	Marine Management/Oceanography 2
260621	Marine Biology
260622	Marine Biology, Advanced
280421	Marine Corps Leadership Education 1
280422	Marine Corps Leadership Education 2
280423	Marine Corps Leadership Education 3
280424	Marine Corps Leadership Education 4
490311	Marine Mechanics, Basic
490312	Marine Mechanics, Advanced
061400	Marketing Management and Research, Other
061411	Marketing Management and Decision Making
089900	Marketing and Distribution, Other
200172	Marriage Society and Change
380205	Marriage, Life Choices in Christian Living
460111	Masonry 1
460112	Masonry 2
460113	Masonry 3
090111	Mass Media
141800	Materials, Engineering, Other
270100	Mathematics, Other General
270101	Mathematics 7
270102	Mathematics 7, Accelerated
270103	Mathematics 8
270104	Mathematics 8, Accelerated
270106	Mathematics 1, General
270107	Mathematics 2, General
270109	Mathematics in the Arts
270110	Mathematics, Vocational
270112	Mathematics Review
270113	Mathematics Tutoring

270421	Mathematics 1, Unified
270422	Mathematics 2, Unified
270423	Mathematics 3, Unified
270424	Mathematics, Independent Study
279900	Mathematics, Other
480411	Meatcutting 1
480412	Meatcutting 2
557311	Meatcutting 1
557319	Meatcutting 1, not for credit
557321	Meatcutting 2
557329	Meatcutting 2, not for credit
141900	Mechanical Engineering, Other
150800	Mechanical and Related Technologies, Other
150821	Mechanical Engineering Technology
480111	Mechanical Drawing 1
480112	Mechanical Drawing 2
480113	Mechanical Drawing 3
480114	Mechanical Drawing 4
479900	Mechanics and Repairers, Other
070671	Medical Office Procedures
170300	Medical Laboratory Technologies, Other
170531	Medical Terminology
170541	Medical Records Secretary
170551	Medical Assisting
180900	Medical Laboratory, Other
181801	Medical Ethics
181000	Medicine, Other
230871	Medieval Literature
170400	Mental Health/Human Services, Other
170431	Mental Health Worker
480511	Metal 1
480512	Metal 2
480513	Metal 3
480514	Metal 4
480541	Metal Restoration
142000	Metallurgical Engineering, Other
142011	Metallurgy/Powder Metal Basics
400411	Meteorology
050271	Mexican American Heritage
230781	Mexican American Literature
450833	Mexican History
500728	Mexico, Fine Arts
260500	Microbiology, Other
260511	Microbiology
050131	Middle Eastern Studies
050132	Middle East, War for Survival
450861	Middle East History
280300	Military Science (Army), Other
289900	Military Sciences, Other

290100	Military Technologies, Other
400641	Mineralogy
142100	Mining and Mineral Engineering, Other
150900	Mining and Petroleum Technologies, Other
150911	Mining Technology
050211	Minorities in America
170500	Miscellaneous Allied Health Services, Other
260600	Miscellaneous Specialized Areas, Life Sciences, Other
400700	Miscellaneous Physical Sciences, Other
460400	Miscellaneous Construction Trades, Other
470400	Miscellaneous Mechanics and Repairers, Other
556411	Miscellaneous Services 1
556419	Miscellaneous Services 1, not for credit
556421	Miscellaneous Services 2
556429	Miscellaneous Services 2, not for credit
390300	Missionary Studies, Other
451141	Mobility in Society
450941	Model Security Council, Local
450951	Model United Nations, Local
450952	Model United Nations, National
451027	Model Senate
500281	Model Building
160611	Modern Greek for Survival
160621	Modern Greek
160622	Modern Greek 2
160623	Modern Greek 3
160624	Modern Greek 4
230831	Modern British Writers
340138	Modern Medical Issues
450852	Modern Europe
500311	Modern Dance for Beginners 9
500312	Modern Dance for Beginners 10
500313	Modern Dance for Beginners 11
500314	Modern Dance for Beginners 12
500321	Modern Dance 9, Intermediate
500322	Modern Dance 10, Intermediate
500323	Modern Dance 11, Intermediate
500324	Modern Dance 12, Intermediate
380204	Moral Issues, Social and Individual
360181	Motorcycle Operation
309900	Multi/Interdisciplinary Studies, Other
500719	Mural Painting
250500	Museology, Other
500900	Music, Other
500901	Music 7
500902	Music 8
500934	Music Lessons, Applied
500952	Music Theory
500953	Music History 7

500954	Music History 8
500955	Music History 9
500956	Music History 10
500957	Music History 11
500958	Music History 12
500959	Music Literature 9
500960	Music Literature 10
500961	Music Literature 11
500962	Music Literature 12
500963	Music Appreciation
500965	Music Theater
500966	Music, Independent Study
500967	Music Laboratory, General Survey
470411	Musical Instrument Repair
230132	Mysteries
230211	Mythological Literature, Greek and Roman
230126	Mythology and Fable
451008	National State and Local Elections
161000	Native American Languages, Other
142200	Naval Architecture and Marine Engineering, Other
280400	Naval Science (Navy, Marines), Other
280411	Naval Science 1
280412	Naval Science 2
280413	Naval Science 3
280414	Naval Science 4
490331	Navigation
050137	Neglected World
050106	New England Studies
450819	Nineteen Sixties
450820	Nineteen Seventies
230150	Nobel Prize Authors
230137	Non Fiction
050111	North America and Current Events
050112	North and South America
450832	North American History
160521	Norwegian 1
160522	Norwegian 2
230130	Novels
142300	Nuclear Engineering, Other
410200	Nuclear Technologies, Other
170631	Nurse's Aide and Orderly
170641	Nurse's Aide, Cooperative
170651	Nurse's Mathematics
010651	Nursery Operations and Management
170600	Nursing-Related Services, Other
170621	Nursing, Practical
181100	Nursing, Other
020251	Nutrition and Feeds
200188	Nutrition

230144	Occult Literature
142400	Ocean Engineering, Other
400711	Oceanography
320121	Off-Campus Vo Tech Training - Unspecified
070161	Office Machines
070162	Office Machines, Vocational
070400	Office Supervision and Management, Other
070731	Office Procedures 1
070732	Office Procedures 2
070741	Office Education 1, Cooperative
070742	Office Education 2, Cooperative
552111	Office Machines 1
552121	Office Machines 2
050107	Old South
170700	Ophthalmic Services, Other
170711	Optical Services Assistant
150631	Optics Technology
181200	Optometry, Other
500912	Orchestra 7
500913	Orchestra 7, Advanced
500914	Orchestra 8
500915	Orchestra 8, Advanced
500916	Orchestra 9
500917	Orchestra 9, Advanced
500918	Orchestra 10
500919	Orchestra 11
500920	Orchestra 12
500933	Organ
400531	Organic Chemistry
061500	Organizational Behavior, Other
080911	Orientation to Hospitality Careers
140111	Orientation to Engineering
020421	Ornamental Horticulture 1
020422	Ornamental Horticulture 2
020423	Ornamental Horticulture 3
181300	Osteopathic Medicine, Other
450802	Our Cultural Heritage 7
300131	Outdoor Education
310200	Outdoor Recreation, Other
050139	Pacific Rim Nations
450866	Pacific Lands, History
460421	Painting and Decorating
500715	Painting 1
500716	Painting 2
200173	Parenthood
310100	Parks and Recreation, Other General
310300	Parks and Recreation Management, Other
319900	Parks and Recreation, Other
110231	PASCAL, Introduction

260761	Pathology
300500	Peace Studies, Other
350131	Peer Counseling
330121	Pep Squad
500341	Performing Dance Group 9
500342	Performing Dance Group 10
500343	Performing Dance Group 11
500344	Performing Dance Group 12
070371	Peripheral Computer Operator
070153	Personal Recordkeeping
120400	Personal Services, Other
120431	Personal Services Occupations
370100	Personal Awareness, Other
370111	Personal Development Techniques
421000	Personality Psychology, Other
061600	Personnel Management, Other
070500	Personnel and Training Programs, Other
142500	Petroleum Engineering, Other
150921	Petroleum Technology
470341	Petroleum Drilling Equipment Operation
470342	Petroleum Drilling Equipment Operation
470343	Petroleum Drilling Equipment Operation
181400	Pharmacy, Other
181411	Pharmacy Technician
380100	Philosophy, Other
380111	Philosophy
389900	Philosophy and Religion, Other
100131	Photography, Commercial
100132	Photography, Advanced Commercial
500621	Photography 10
500622	Photography 11, Elementary
500623	Photography 12, Elementary
500631	Photography 11, Advanced
500632	Photography 12, Advanced
340111	Physical and Health Education 7
340112	Physical and Health Education 8
340113	Physical and Health Education 9
340114	Physical Education 10
340115	Physical Education 11
340116	Physical Education 12
340121	Physical Education, Adaptive
340122	Physical Education - Medically Excused
340161	Physical Education Leadership Training
400100	Physical Sciences, Other General
400121	Physical Science
400141	Physical Science, Applied
400541	Physical Chemistry
409900	Physical Sciences, Other
410300	Physical Science Technologies, Other

450707	Physical Geography
400800	Physics, Other
400811	Physics, General
400821	Physics 1
400822	Physics 2
400831	Physics 2 without Calculus
421100	Physiological Psychology, Other
260751	Physiology, Human
260752	Physiology, Advanced
500931	Piano 1
500932	Piano 2
400900	Planetary Science, Other
020400	Plant Sciences, Other
551211	Plant Care 1
551219	Plant Care 1, not for credit
551221	Plant Care 2
551229	Plant Care 2, not for credit
480611	Plastics 1
480612	Plastics 2
230129	Plays, Modern Survey
500531	Playwriting
460500	Plumbing, Pipefitting, and Steamfitting, Other
460511	Plumbing 1
460512	Plumbing 2
558311	Plumbing 1
558319	Plumbing 1, not for credit
558321	Plumbing 2
558329	Plumbing 2, not for credit
181500	Podiatry, Other
230133	Poetry
160441	Polish 1
160442	Polish 2
160443	Polish 3
160444	Polish 4
451000	Political Science and Government, Other
451028	Political Leadership
451029	Political Science
451030	Political Science, Advanced Placement
451031	Political Science and Government -
451032	Political Turmoil
181600	Population and Family Planning, Other
450511	Population Education
160926	Portuguese 1
160927	Portuguese 2
160928	Portuguese 3
160929	Portuguese 4
160930	Portuguese 5
161321	Portuguese for Native Speakers 1
161322	Portuguese for Native Speakers 2

161323	Portuguese for Native Speakers 3
161324	Portuguese for Native Speakers 4
020231	Poultry
010231	Power and Machinery, Agricultural
470511	Power Mechanics 1
470512	Power Mechanics 2
470513	Power Mechanics 3
470514	Power Mechanics 4
380213	Prayer and Liturgy
181700	Pre-Dentistry, Other
181800	Pre-Medicine, Other
181900	Pre-Pharmacy, Other
182000	Pre-Veterinary, Other
270401	Pre-Algebra
480400	Precision Food Production, Other
480500	Precision Metal Work, Other
480600	Precision Work, Assorted Materials, Other
489900	Precision Production, Other
557411	Precision Production Work Study 1
557419	Precision Production Work Study 1, not for credit
557421	Precision Production Work Study 2
557429	Precision Production Work Study 2, not for credit
557511	Precision Production Work Experience 1
557519	Precision Production Work Experience 1, not for credit
557521	Precision Production Work Experience 2
557529	Precision Production Work Experience 2
451005	Presidency
500291	Printmaking 1
500292	Printmaking 2
270521	Probability
270531	Probability and Statistics
500723	Product Design
182100	Prosectorial Science, Other
439900	Protective Services, Other
230145	Protest Literature
380215	Protestantism, Foundations
421200	Psycholinguistics, Other
420100	Psychology, Other General
420111	Psychology
420112	Psychology, Advanced
420311	Psychology of Learning
429900	Psychology, Other
421300	Psychometrics, Other
421400	Psychopharmacology, Other
421411	Psychopharmacology
090500	Public Relations, Other
182200	Public Health Laboratory Science, Other
231011	Public Speaking
440100	Public Affairs, Other General

440400	Public Administration, Other
440500	Public Policy Studies, Other
440600	Public Works, Other
449900	Public Affairs, Other
270400	Pure Mathematics, Other
150700	Quality Control and Safety Technologies, Other
150711	Quality Control Technology
421500	Quantitative Psychology, Other
090600	Radio/Television News Broadcast, Other
090700	Radio/Television, Other General
100161	Radio Production
100191	Radio/Television Production 1
100192	Radio/Television Production 2
470121	Radio and TV Repair 1
470122	Radio and TV Repair 2
470123	Radio and TV Repair 3
410211	Radioactivity
230153	Reading, Independent Study
231211	Reading Development 1
231212	Reading Development 2
231213	Reading Development 3
231214	Reading Development 4
060321	Real Estate Finance
061700	Real Estate, Other
061711	Real Estate Marketing
230121	Realism
070151	Recordkeeping 1
070152	Recordkeeping 2
310111	Recreation Aide
360191	Recreational Activities
450821	Reform in American History
170800	Rehabilitation Services, Other
380200	Religion, Other
380209	Religion and Psychology
380211	Religion and Literature
380212	Religion, Introduction
380216	Religious Movements in America
390400	Religious Education, Other
390500	Religious Music, Other
230119	Renaissance Literature
030100	Renewable Natural Resources, Other General
039900	Renewable Natural Resources, Other
070651	Reprographics
230154	Research Technique
320201	Resource Room (Non Special Education)
562301	Resource Language Arts/english 1
562302	Resource Language Arts/english 2
562303	Resource Language Arts/english 3
562304	Resource Language Arts/english 4

562309	Resource Language Arts/english, not for credit
562311	Resource Reading
562319	Resource Reading, not taken for credit
562321	Resource Writing
562329	Resource Writing, not for credit
562701	Resource General Math
562709	Resource General Math, not for credit
562711	Resource Vocational Math
562719	Resource Vocational Math, not for credit
562721	Resource Consumer Math
562729	Resource Consumer Math, not for credit
563201	Resource Career Exploration/prevocational
563209	Resource Career Exploration/prevocational Skill, not for credit
563211	Resource Transition Skills
563219	Resource Transition Skills, not for credit
564001	Resource General Science
564009	Resource General Science, not for credit
564501	Resource Social Studies
564509	Resource Social Studies, not for credit
569101	Resource Study Skills
569109	Resource Study Skills, not for credit
569301	Resource Survival Skills
569309	Resource Survival Skills, not for credit
080741	Retail Learning Laboratory
230900	Rhetoric, Other
230134	Rock Poetry
400911	Rocketry and Space Science
230120	Romanticism
450847	Rome and Her Empire
110271	RPG Programming, Introduction
030621	Rural Recreation
160421	Russian 1
160422	Russian 2
160423	Russian 3
160424	Russian 4
160425	Russian 5
160426	Russian 6
230124	Russian Literature
450867	Russian History
380207	Sacraments
340181	Safety
080731	Salesmanship
230851	Satire, Modern British
130800	School Psychology, Other
200481	School Food Service
569201	School And Social Survival Skills
569209	School and Social Survival Skills, not for credit
230138	Science Fiction
260111	Science 7

270108	Science Mathematics
300111	Science, Unified
300121	Science Study, Independent
400111	Science 8
419900	Science Technologies, Other
380203	Scripture
500720	Sculpture
310121	Search and Rescue
070600	Secretarial and Related Programs, Other
070631	Secretarial Administration 1
070632	Secretarial Administration 2
430311	Security Guard
370131	Self Perception
230151	Seminar on an Author
161100	Semitic Languages, Other
556511	Service Occupations Work Study 1
556519	Service Occupations Work Study 1, not for credit
556521	Service Occupations Work Study 2
556529	Service Occupations Work Study 2, not for credit
556611	Service Occupations Work Experience 1
556619	Service Occupations Work Experience 1, not for credit
556621	Service Occupations Work Experience 2
556629	Service Occupations Work Experience 2, not for credit
340191	Sex Education
230821	Shakespeare
480531	Sheet Metal 1
480532	Sheet Metal 2
470431	Shoe Repair and Orthopedics 1
470432	Shoe Repair and Orthopedics 2
230131	Short Story
070611	Shorthand 1
070612	Shorthand 2
090811	Sign Language 1
090812	Sign Language 2
480231	Sign Painting 1
480232	Sign Painting 2
480233	Sign Painting 3
500721	Silk Screen
070733	Simulated Office
020271	Small Animal Production 1
020272	Small Animal Production 2
061800	Small Business Management and Ownership, Other
061811	Small Business Management
470111	Small Appliance Repair
470611	Small Engine Repair 1
470612	Small Engine Repair 2
130900	Social Foundations, Other
380151	Social Justice Issues
421600	Social Psychology, Other

421611	Social Psychology
440700	Social Work, Other
450100	Social Sciences, Other General
450111	Social Science, Introduction
450121	Social Science, Advanced Theory and Research
450131	Social Science Seminar
450141	Social Studies, Independent Study
450803	Social Studies 7, Honors
450805	Social Studies 8
450806	Social Studies 8, Honors
459900	Social Sciences, Other
543101	Social/behavioral Skills
543109	Social/behavioral Skills, not for credit
451100	Sociology, Other
451121	Sociology, General
451131	Sociology, Issues
451171	Sociology, Honors
451181	Sociology, Research
010182	SOEP - Supervised Occupational
010261	Soil and Water Mechanical Practices
020500	Soil Sciences, Other
020511	Soil Sciences, General
450834	South American History
050109	Southwest United States
050134	Soviet Union and China
050135	Soviet Union and Afro American Developing Nations
480621	Space Age Plastics
160931	Spanish 7
160932	Spanish 8
160933	Spanish 1
160934	Spanish 2
160935	Spanish 3
160936	Spanish 4
160937	Spanish, Advanced Placement
160938	Spanish Field-Based Experience
160941	Spanish for Travelers
160942	Spanish, Commercial
161311	Spanish for Native Speakers 1
161312	Spanish for Native Speakers 2
161313	Spanish for Native Speakers 3
161314	Spanish for Native Speakers 4
161315	Spanish for Native Speakers 5/Advanced Placement
131000	Special Education, Other
562300	Special Education Language Arts
562310	Special Education Reading
562320	Special Education Writing
562700	Special Education Math
564000	Special Education General Science
564500	Special Education Social Studies

231000	Speech, Debate, and Forensics, Other
231021	Speech 1
231022	Speech 2
231023	Speech 3
070613	Speed Writing
231215	Speed Reading
230405	Spelling
120211	Sports Officiating
170561	Sports Medicine
230143	Sports through Literature
360111	Sports, Individual
360121	Sports, Team
500371	Square Dance
500511	Stagecraft 9
500512	Stagecraft 10
500513	Stagecraft 11
500514	Stagecraft 12
080311	Starting Your Own Business
010141	State and Community Agriculture
230761	State Writers
340137	State Requirements
451002	State and Local Government
470500	Stationary Energy Sources, Other
270500	Statistics, Other
270511	Statistics
220131	Street Law
140411	Strength of Materials - Architectural
141911	Strength of Materials - Mechanical Technology
150111	Structural Engineering Technician
131100	Student Counseling and Personnel Services, Other
170611	Student Assessment of Child Health
330111	Student Assistant
330131	Student Government
320211	Study Dynamics
240121	Summer Abroad
010271	Surveying, Agricultural
142600	Surveying and Mapping Sciences, Other
150211	Surveying
160211	Swahili 1
160212	Swahili 2
160531	Swedish 1
160532	Swedish 2
160533	Swedish 3
110500	Systems Analysis, Other
142700	Systems Engineering, Other
300600	Systems Science, Other
200137	Tailoring
061900	Taxation, Other
131200	Teacher Education, General Programs, Other

131300	Teacher Education, Specific Subject Areas, Other
200251	Teacher Aide/Elementary
200252	Teacher Aide/Secondary
131400	Teaching English as a Second Language/Foreign
231100	Technical and Business Writing, Other
231111	Technical English
270111	Technical Mathematics
451231	Technology and Urbanization
470124	Telecommunications Technician
080781	Telephone Service Representative
080782	Telephone Directory Assistant
090721	Television and Taste
100171	Television Production 1
100172	Television Production 2
100173	Television Production 3
100174	Television Production 4
450607	Television and Economics
320221	Test Taking
142800	Textile Engineering, Other
500271	Textile Design
190900	Textiles and Clothing, Other
200381	Textiles Testing
451132	The Poor in America
500421	Theater Makeup
500541	Theater Practicum Contract
230139	Themes in Literature
390600	Theological Studies, Other
390611	Theological Studies
399900	Theology, Other
200661	Therapeutic Recreation Aide
450857	Third World History
460121	Tile Setting and Plastering
081111	Tourism Services
182300	Toxicology (Clinical), Other
360151	Track and Field
490212	Tractor-Trailer Truck Driving
062000	Trade and Industrial Supervision and Management, Other
070621	Transcription
160125	Transitional English
081100	Transportation and Travel Marketing, Other
490412	Transportation Technology 2
490421	Transportation/Traffic Technician
499900	Transportation and Material Moving, Other
270411	Trigonometry
270413	Trigonometry and Solid Geometry
010671	Turf Management
161211	Turkish 1
161212	Turkish 2
330141	Tutoring

450817	Twenties and Thirties
450816	Twentieth Century America
070711	Typewriting 1
070712	Typewriting 2
070713	Typewriting 3
070721	Typewriting, Personal
070700	Typing, General Office, and Related Programs,Other
050133	U S S R
160411	Ukrainian 1
600000	Uncodeable
600001	Undifferentiated Transfer Credits
450804	United States History 8
450807	United States History, State and Local
450808	United States History, Advanced Placement
450811	United States History 1
450812	United States History 2
450813	United States History, Honors
450829	United States Military History 1
450830	United States Military History 2
450831	United States History, Field Study
160940	Unused Code
270105	Unused Code
320101	Unused Code
320108	Unused Code
320109	Unused Code
320110	Unused Code
320111	Unused Code
320112	Unused Code
320113	Unused Code
320114	Unused Code
320115	Unused Code
320116	Unused Code
320117	Unused Code
320118	Unused Code
320119	Unused Code
320120	Unused Code
330161	Unused Code
480321	Upholstery
480322	Upholstery, Advanced
040700	Urban Design, Other
451200	Urban Studies, Other
451211	Urban Problems
451221	Urban Ecology
230148	Utopias
470600	Vehicle and Mobile Equipment Mechanics and
490200	Vehicle and Equipment Operation, Other
081200	Vehicles and Petroleum Marketing, Other
470141	Vending Machine Repair
170571	Veterinary Science

182400	Veterinary Medicine, Other
230841	Victorian Literature
451151	Violence In America
500100	Visual and Performing Arts, Other General
509900	Visual and Performing Arts, Other
230404	Vocabulary
500947	Vocal Ensemble
209900	Vocational Home Economics, Other
230156	Vocational English
500948	Voice Class
450827	War and Modern Consciousness
080761	Warehousing Industrial and Wholesale Material
470433	Watch and Clock Repair
310400	Water Resources, Other
490300	Water Transportation, Other
500717	Watercolor 1
030311	Waterman Occupations
200361	Wedding and Specialty Consulting
010221	Welding, Agricultural
480521	Welding 1
480522	Welding 2
480523	Welding 3
480524	Welding - Cooperative Education
230771	Western Literature
380210	Western Religions
450840	Western Civilization 9
450841	Western Civilization 9, Honors
450842	Western Civilization, History
450844	Western Civilization, Advanced Placement
450815	Westward Movement
380202	Who Is Jesus
030600	Wildlife Management, Other
030611	Wildlife Management
500923	Wind Ensemble
310211	Winter/Ski Resort Operation
230142	Women in Literature
300700	Women's Studies, Other
300711	Women's Studies
300721	Women's Studies in Literature
500924	Woodwind Class
480700	Woodworking, Other
480711	Woodworking 1
480712	Woodworking 2
480713	Woodworking 3
480714	Woodworking 4
070641	Word Processing 1
070642	Word Processing 2
070643	Word Processing 3
230415	Word Study - Remedial

320104	Work Experience
320105	Work Experience, Advanced
050114	World Studies 1
050115	World Studies 2
050116	World Studies, Honors
100111	World of Communications
230118	World Literature
230128	World Drama
450704	World Geography
450828	World War II
450835	World History
450836	World History, College
450837	World History, Modern
450838	World Civilization, Twentieth Century
450839	World Civilization, Twentieth Century, Honors
450868	World Leaders, Past and Present
230402	Writing Laboratory
230403	Writing About Literature
451025	Writings Influencing Government
090441	Yearbook Production 1
090442	Yearbook Production 2
160541	Yiddish 1
160542	Yiddish 2
160543	Yiddish 3
230146	Youth and Literature
260700	Zoology, Other
260711	Zoology
260721	Zoology, Vertebrate
260731	Zoology, Invertebrate

Appendix M

Glossary of NELS:88 Terminology

Glossary of NELS:88 Terms

Note: Words in the glossary have been cross-referenced. If a word used in a definition has its own entry elsewhere in the glossary, the word appears in italics in its first usage under each entry.

Alternative completer: The NELS:88 second follow-up distinguished three levels of enrollment status: students enrolled in a regular high school program, *dropouts* who had enrolled in (or had completed) some alternative (non-diploma) high school equivalency accrediting program (for example, preparation classes for the *GED test*), and dropouts receiving no alternative instruction. The term "alternative completer" was used for dropouts receiving any sort of instruction to prepare them for equivalency certification, and for dropouts who had already received the GED or other equivalency certification. In terms of questionnaire completion, alternative completers were treated in two ways. Dropouts receiving alternative instruction in preparation for possible equivalency certification were administered the dropout questionnaire. Those dropouts who had received the GED or other high school equivalency certification were treated as school completers, and were administered the *student questionnaire*.

ASCII: American Standard Code for Information Interchange. A standard method for encoding characters; includes codes representing upper and lower case letters, numerals, and punctuation.

Augmentation students: See State augmentation students.

Base year ineligible (BYI) study: A NELS:88 First Follow-Up study which sought to locate and survey eligible respondents who were part of the Base Year *sample*, yet were ineligible to participate in the Base Year due to mental or physical incapacity, language barrier, or other factors. (See entry for "Followback study of excluded students.")

Bias (due to nonresponse): Difference that occurs when respondents differ as a group from nonrespondents on a characteristic being studied.

Bias (due to undercoverage): This bias arises because some portion of the potential sampling frame is missed or excluded. For example, if the school list from which a school *sample* is drawn is incomplete or inaccurate, school undercoverage may occur. In NELS:88 the most important potential source of undercoverage bias was exclusion of 5.37 percent of the potential sample of eighth graders in the base year. (See entry for "Base year ineligible study" and "Followback study of excluded students.")

Bias (of an estimate): The difference between the expected value of a *sample* estimate and the corresponding true value for the *population*.

Burden: Formally, this is the aggregate hours realistically required for data providers to participate in a data collection. Burden also has a subjective or psychological dimension: the degree to which providing information is regarded as onerous may depend on the salience to the respondent of the questions that are being posed and on other factors such as competing time demands.

BY: NELS:88 Base Year Study conducted in 1988.

Carnegie units: A standard of measurement used for secondary education that represents the completion of a course that meets one period per day for one year.

CCD: Common Core of Data. Data annually collected from all public schools in the United States by the National Center for Education Statistics.

CD-ROM: Compact Disc Read-Only Memory. A computer storage disc in the same physical form as an audio CD. A CD-ROM can store approximately 650 megabytes of digital data. NELS:88 data are available both in magnetic media, such as tapes, as well as in optical laser disc media, such as CD-ROM.

Ceiling effect: The result of a cognitive test having insufficient numbers of the more difficult items. In a *longitudinal* study, ceiling effects in the follow-up testings can cause change scores to be artificially constrained for high ability examinees. More information (that is, smaller error of measurement) is obtained with respect to ability level if high ability individuals receive relatively harder items (and if low ability individuals receive proportionately easier items). The matching of item difficulty to a person's ability level yields increased *reliability* at the extremes of the score distribution where it is most needed for studies of longitudinal change. That is, the measurement problems related to *floor* and ceiling effects in combination with regression effects found at the extreme score ranges seriously hamper the accuracy of change measures in longitudinal studies. Hence one strategy employed in NELS:88 to minimize ceiling effects was to develop test forms that are "adaptive" to the ability level of the examinee. The multilevel tests used in the first and second follow-ups of NELS:88--with test assignment based on prior test performance--work to minimize the possibility of ceiling effects biasing the estimates of the score gains. (See entry for "Floor effect.")

Certainty school: A first or second follow-up school attended by four or more NELS:88 *sample* members, as determined by *tracing* and data collection efforts. These schools are included in the sample with certainty (probability = 1). All NELS:88 first follow-up sample members in the school at the time of data collection were included in the second follow-up.

Closed-ended: A type of question in which the data provider's responses are limited to given alternatives (as opposed to an *open-ended* question. See entry for "Open-ended.")

Cluster size: The number of NELS:88 *sample* members attending a particular high school.

Codebook: A *record* of each variable being measured, including variable name, columns occupied by each variable in the data matrix, values used to define each variable, unweighted frequencies, unweighted percents, and weighted valid percents. (See entry for "electronic codebook.")

Cognitive test battery: One of the two parts of the Student Survey (the second part being the *student questionnaire*). Four achievement areas (mathematics, reading, science, and social studies [history/ citizenship/geography]) were measured.

Cohort: A group of individuals who have a statistical factor in common, for example, year of birth or grade in school or year of high school graduation. NELS:88 embraces three overlapping but distinct nationally-representative grade cohorts: 1987-88 eighth graders, 1989-90 high school sophomores, and 1991-92 high school seniors.

Composite variables: A composite variable is one that is constructed through either the combination of two or more variables (socioeconomic status, for example) or calculated through the application of a mathematical function to a variable. Also called a "derived variable" or "constructed variable."

Confidence interval: A *sample*-based estimate expressed as an interval or range of values within which the true *population* value is expected to be located (with a specified degree of confidence).

Contextual data: In NELS:88, the primary unit of analysis is the student (or *dropout*), and information from the other study components, referred to as the contextual data, should be viewed as extensions of the student data--for example, as *school administrator*, *teacher*, and *parent* reports on the student's school learning environment or home situation.

Core school: School that was selected between Phases 1 and 2 of the Second Follow-Up to receive the full complement (*School Administrator*, *Teacher*, Transcript) of study components, and for in-school data collection sessions.

Core student: Students who are part of the primary *cohort* of NELS:88, in contrast to *state augmentation* or *School Effectiveness Study* students. The core students include those chosen as eighth graders in the 1988 Base Year Study and those added to the *sample* through *freshening* procedures during the First or Second Follow-Up.

Core study: The original NELS:88 study, in contrast to the study with additions and follow-up additions like the *state augmentation* studies and the *School Effectiveness Study*.

Course offerings: School-level summaries of courses offered and of course enrollment levels; while in *HS&B* course offerings data were collected for all schools, in NELS:88 such data have been collected only for schools in the *School Effectiveness Study*.

Cross-sectional survey: A cross-sectional design represents events and statuses at a single point in time. For example, a cross-sectional survey may measure the cumulative educational attainment (achievements, attitudes, statuses) of students at a particular stage of schooling (for example, eighth grade, tenth grade, or twelfth grade). In contrast, a *longitudinal* (or repeated measurement of the same *sample* units) survey measures the change or growth in educational attainments that occurs over a particular period of schooling. The longitudinal design of NELS:88 generates--by means of sample "*freshening*"--three representative cross-sections (eighth graders in 1988, high school sophomores in 1990, seniors in 1992) and permits analysis of individual level change over time through longitudinal analysis and of group level and intercohort change through the cross-sectional comparisons. (See entry for "Longitudinal or Panel Survey.")

Data element: The most basic unit of information. In data processing it is the fundamental data structure. It is defined by its size (in characters) and data type (e.g. alphanumeric, numeric only, true/false, date) and may include a specific set of values or range of values.

Design effect: A measure of *sample* efficiency. The design effect (DEFF) is the *variance* of an estimate divided by the variance of the estimate that would have occurred if a sample of the same size had been selected using simple random sampling. Sometimes it is more useful to work with *standard errors* than with variances. The root design effect (DEFT) expresses the relation between the actual standard error of an estimate and the standard error of the corresponding estimates from a simple random sample.

Dropout: The term is used both to describe an event--leaving school before graduating--and a status --an individual who is not in school and is not a graduate at a defined point in time. The "*cohort* dropout rate" in NELS:88 is based on measurement of enrollment status of 1988 eighth graders two and four years later (that is, in the spring term of 1990 and the spring term of 1992) and of 1990 sophomores two years later.

A respondent who has not graduated from high school or attained an equivalency certificate and who has not attended high school for 20 consecutive days (not counting any excused absences) is considered to be a dropout. In contrast, transferring schools--for example, from a public to a private school--is not regarded as a dropout event, nor is delayed graduation (as when a student is continuously enrolled but takes an additional year to complete school). A person who drops out of school may later return and graduate: at the time the person left school initially, he or she is called a "dropout," and at the time the person returns to school, he or she is called a "*stopout*."

Early graduate: A student who graduated from high school in less than the typical amount of time. For example, if a student graduated in December of his/her senior year (when the majority of his/her classmates graduate the following May or June), the student is categorized as an early graduate. In the main study data collection, early graduates were administered a special supplement in the *student questionnaire* along with the *cognitive test battery*.

Electronic codebook (ECB): While hardcopy *codebooks* with item stems, response categories, associated response frequency distributions, unweighted percents, and weighted valid percents are contained within the NELS:88 user's manuals, NELS:88 data are also available on *CD-ROM* in an electronic codebook (ECB) format. For example, the electronic codebook created for the combined base year first follow-up NELS:88 data is a menu-driven system that allows users to perform functions such as the following: (a) search a list of NELS:88 *BY-F1* database variables based upon key words or variable names/labels; (b) display weighted and unweighted percentages for each variable in the database; (c) display question text for each variable in the database; (d) select or tag variables for subsequent analysis; (e) generate SAS-PC or SPSS-PC+ program code/command statements for subsequently constructing a system file of the selected variables; and (f) generate a codebook of the selected variables. An electronic codebook is also being prepared for the NELS:88 second follow-up data, and will again be housed on a CD-ROM.

ETS: Educational Testing Service. *NORC*'s subcontractor for NELS:88 cognitive test development and evaluation.

F1: The NELS:88 first follow-up, conducted in 1990.

F2: The NELS:88 second follow-up, conducted in 1992.

File: Refers to a data file containing a set of related computerized *records*.

Floor effect: The result of a cognitive test being too difficult for a large number of the examinees, causing the low ability examinees to receive chance scores on the first testing, and on subsequent testings if the test remains too difficult. Floor effects result in an inability to discriminate among low ability individuals at time one or time two, and there will be no reliable discrimination among examinees with respect to amounts of change. A possible solution, utilized in NELS:88, is to develop test forms that are "adaptive" to the ability level of the examinee, which tends to minimize the possibility of floor effects biasing the estimates of the score gains.

Followback study of excluded students: A continuation in the NELS:88 second follow-up of a special substudy begun in the first follow-up as (see entry for) the *base year ineligibles study*.

Freshening: A NELS:88 sampling procedure by which high school sophomores were added in the first follow-up who were not in the eighth grade in the U.S. two years before. This process was repeated in the second follow-up, adding high school seniors who were not in the eighth grade in the U.S. four years before, and not in the tenth grade in the U.S. two years before. This process ensured that the *sample* would be representative of the 1992 senior class by allowing 1992 seniors who did not have a chance for selection into the base year (or the first follow-up) sample to have some probability of 1992 selection.

GED recipient: A person who has obtained certification of high school equivalency by meeting state requirements and passing an approved exam, which is intended to provide an appraisal of the person's achievement or performance in the broad subject matter areas usually required for high school graduation. (See entry for "GED test" and "Alternative completer.")

GED test: General Educational Development test. A test administered by the American Council on Education as the basis for awarding a high school equivalent certification.

HS&B: High School and Beyond. The second in the series of *longitudinal* education studies sponsored by NCES. The HS&B Base Year study surveyed sophomore and senior students in 1980.

IEP: Individualized Education Program in special education for students with a mental or physical disability.

IRT: Item Response Theory. A method of estimating achievement level by considering the pattern of right, wrong, and omitted responses on all items administered to an individual student. Rather than merely counting right and wrong responses, the IRT procedure also considers characteristics of each of the test items, such as their difficulty, and the likelihood that they could be guessed correctly by low-ability individuals. IRT scores are less likely than simple number-right or formula scores to be distorted by correct guesses on difficult items if a student's response vector also contains incorrect answers to easier questions. Another attribute of IRT that makes it useful for NELS:88 is the calibration of item parameters for all items administered to all students. This makes it possible to obtain scores on the same scale for students who took harder or easier forms of the test. IRT also permits vertical scaling of the three grade levels (grade 8 in 1988, grade 10 in 1990, grade 12 in 1992).

Item nonresponse: The amount of missing information when a valid response to an item or variable was expected. (See entry for "Unit-nonresponse.")

LEP: Limited English Proficient. A concept developed to assist in identifying those language-minority students (individuals from non-English language backgrounds) who need language assistance services, in their own language or in English, in the schools. (See entries for "NEP" and "LM.") The Bilingual Education Act, reauthorized in 1988 (PL 100-297), describes a limited English proficient student as one who:

1) meets one or more of the following conditions:
    a) the student was born outside of the United States or the student's native language is not English;
    b) the student comes from an environment where a language other than English is dominant; or
    c) the student is American Indian or Alaskan Native and comes from an environment where a language other than English has had a significant impact on his/her level of English language proficiency; and
2) has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfully in English-only classrooms.

LM: Language Minority. A fully English proficient student in whose home a non-English language is typically spoken. This groups includes students whose English is fluent enough to benefit from instruction in academic subjects offered in English.

Longitudinal or panel survey: In a longitudinal design, similar measurements--of the same *sample* of individuals, institutions, households or of some other defined unit--are taken at multiple time points. NELS:88 employs a longitudinal design that follows the same individuals over time, and permits the analysis of individual-level change. (See entry for "Cross-sectional survey.")

Machine editing: Also called forced data cleaning or logical editing. Uses computerized instructions in the data cleaning program that ensure common sense consistency within and across the responses from a data provider.

Microdata (microrecords): Observations of individual *sample* members, such as those contained on the NELS:88 data *files*.

MSA: Metropolitan statistical area. A large population nucleus and the nearby communities which have a high degree of economic and social integration with that nucleus. Each MSA consists of one or more entire counties (or county equivalents) that meet specified standards pertaining to population, commuting ties, and metropolitan character. (However, in New England, towns and cities, rather than counties, are the basic units.) MSAs are designated by the Office of Management and Budget (*OMB*). An MSA includes a city and, generally, its entire urban area and the remainder of the county or counties in which the urban area is located. A MSA also includes such additional outlying counties which meet specified criteria relating to metropolitan character and level of community of workers into the central city or counties.

Multidimensional raking: An adjustment procedure in weighting whereby the sum of the weights for each marginal category of respondents in the follow-up rounds of NELS:88 was made equal to the corresponding sum of the final prior round weights for that group.

NAEP: The National Assessment of Educational Progress.

NAIS: The National Association of Independent Schools. This organization endorsed NELS:88. NAIS schools form a base year school sampling stratum in NELS:88, and NAIS constitutes a category within the restricted use *file* school control type variable.

NCEA: The National Catholic Educational Association. This organization endorsed NELS:88.

NCES: The National Center for Education Statistics, Office of Educational Research and Improvement, of the U.S. Department of Education. This governmental agency is the primary sponsor of NELS:88, and is also the sponsoring agency for (among other studies) *NAEP*, *HS&B*, and *NLS-72*.

NELS:88: The National Education Longitudinal Study of 1988. Third in the series of *longitudinal* education studies sponsored by NCES. The study began in 1988 with the eighth-grade class of that year. The study has collected data in 1988, 1990, and 1992 on student's school experiences, as well as background information from *school administrators*, *teachers* and *parents* (in the base year and second follow-up only). The study seeks to learn about students' educational experiences and outcomes from eighth grade through high school and beyond.

NEP: No English Proficiency. A student who does not speak English. (See entry for "LEP.")

New Basics: In its report *A Nation At Risk: The Imperative for Educational Reform* (1983), the National Commission on Excellence in Education recommended that all high school students "be required to lay the foundations in the Five New Basics by taking the following curriculum during their four years of high school: (i) 4 years of English; (ii) 3 years of mathematics; (iii) 3 years of science; (iv) 3 years of social studies; and (v) one-half year of computer science." A more stringent version of the New Basics was offered by Secretary of Education William Bennett in 1988 (*American Education, Making It Work: A Report to the President and the American People)*, comprising the scheme above, plus a minimum of two years of foreign language. Summary composite variables, reflecting various interpretations of the New Basics, were created for the HS&B and NAEP high school transcript studies; the NELS:88 transcript study provides both HS&B and NAEP equivalent New Basics variables.

NLS-72: The National Longitudinal Study of the High School Class of 1972. This project was the first in the series of *longitudinal* education studies sponsored by NCES.

Noncertainty schools: Schools in which fewer than four (three, two or one) NELS:88 students attended. These schools were not subsampled for participation in the *School Administrator, Teacher*, and Transcript components. Additionally, the survey instruments were not administered in group sessions in the schools, as was done in the *certainty schools*.

Nonresponse: (See entry for "Item nonresponse" and "Unit nonresponse.")

Nonsampling error: An error in *sample* estimates that cannot be attributed to sampling fluctuations. Such errors may arise from many sources including imperfect implementation of sampling procedures, differential unit or *item nonresponse* across subgroups, *bias* in estimation, or errors in observation and recording.

NORC: The National Opinion Research Center at The University of Chicago. NORC conducts NELS:88 for the National Center for Education Statistics.

NSF: The National Science Foundation, which is one of the sponsors of NELS:88. The National Science Foundation awards grants and contracts to individuals and organizations to conduct research. NSF sponsored two components of the second follow-up: 1) additions to the *student questionnaire* to learn about students' experiences and their exposure to mathematics and science curricula, and 2) a *teacher survey* of mathematics and science teachers to obtain evaluations of their NELS:88 student(s) and to learn about their classroom practices and background preparation for teaching.

OBEMLA: The Office of Bilingual Education and Minority Languages Affairs, U.S. Department of Education. OBEMLA funded a NELS:88 supplement that inquired into the education experiences of students whose native language is other than English.

OMB: The Office of Management and Budget, U.S. Executive Branch. OMB is a federal agency with the responsibility for reviewing all studies funded by executive branch agencies. OMB reviewed, commented on, and approved the NELS:88 questionnaires, as indicated by their approval number and its expiration date in the top right corner of the questionnaire covers.

Open-ended: A type of question in which the data provider's responses are not limited to given alternatives.

Optical disc: A disc that is read optically (e.g., by laser technology), rather than magnetically. (See entry for "CD-ROM.")

Optical scanning: A system of recording responses that transfers responses into machine-readable data through optical mark reading. This method of data capture was used for the NELS:88 *student questionnaires* and *cognitive tests*, as well as for the *parent* and *teacher questionnaires*. (In contrast, responses to certain other questionnaires, such as the *school administrator questionnaire*, were keyed by using conventional data entry methods.)

Out-of-sequence: This term means that a student is not in the grade that he/she would be in if progressing with the majority of the *cohort* through school. For example, most NELS:88 *sample* members were in the tenth grade in the 1989-90 school year; one would be described as out-of-sequence if found to be in the eleventh grade in the 1989-90 school year.

Parent, NELS-targeted parent/guardian: The NELS:88 Parent Component sought to collect information from parents of eligible student/*dropout* respondents. It was asked that the parent or guardian who knew most about his or her child's educational experience complete the questionnaire.

PIN: Personal Identification Number. A unique number assigned to each district and school.

Population: All individuals in the group to which conclusions from a data collection activity are to be applied. Weighted results of NELS:88 data provide estimates for populations and subgroups.

Population variance: A measure of dispersion defined as the average of the squared deviations between the observed values of the elements of a population or *sample* and the population mean of those values.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes avocational and adult basic education programs.

Poststratification adjustment: A weight adjustment that forces survey estimates to match independent *population* totals within selected poststrata (adjustment cells).

Precision: The difference between a *sample*-based estimate and its expected value. Precision is measured by the *sampling error* (or *standard error*) of an estimate.

Probability sample: A sample selected by a method such that each unit has a fixed and determined probability of selection.

QED: Quality Education Data. QED is a commercial firm that publishes national directories of all public and private schools and districts. Its list of schools in the U.S. constituted the sampling frame for the base year, and provided important information on school location, principal's name, minority enrollment, and other characteristics.

Range check: A determination of whether responses fall within a predetermined set of acceptable values.

Record format: The layout of the information contained in a data *record* (includes the name, type, and size of each field in the record).

Records: A logical grouping of *data elements* within a *file* upon which a computer program acts.

Reliability: The consistency in results of a test or measurement including the tendency of the test or measurement to produce the same results when applied twice to some entity or attribute believed not to have changed in the interval between measurements.

Sample: Subgroup selected from the entire *population*.

Sampling error: The part of the difference between a value for an entire *population* and an estimate of that value derived from a *probability sample* that results from observing only a sample of values.

Sampling variance: A measure of dispersion of values of a statistic that would occur if the survey were repeated a large number of times using the same *sample* design, instrument and data collection methodology. The square root of the sampling variance is the *standard error*.

School administrator questionnaire: This questionnaire was to be completed by the principal and/or someone designated by the principal. The questionnaire sought basic information about school policies, number of students in each class, curriculum offered, programs for disadvantaged and disabled students, and other school characteristics.

School climate: The social system and culture of the school, including the organizational structure of the school and values and expectations within it.

School Coordinator: A person designated in each school to act as a contact person between the school and *NORC*. This person assisted with establishing a *survey day* in the school, and in some cases where the school *cluster size* was very small, the School Coordinator administered the student instruments.

School Effectiveness Study: A component of NELS:88 added to the first follow-up to permit the study of school effects. The supplement substantially increased *cluster sizes* and provided in-school representative student *samples* at approximately 250 urban and suburban schools in the thirty largest *MSAs* in order to permit researchers to assess the impact of various school characteristics (such as structural and management characteristics and *school climate*) on student outcomes (such as student achievement and educational experience). This component was continued in the second follow-up, and included *student*, *school administrator*, *teacher*, and *parent questionnaires*, transcript surveys, as well as a *course offerings* component.

Standard deviation: The most widely used measure of dispersion of a frequency distribution. It is equal to the positive square root of the *population variance*.

Standard error: The positive square root of the *sampling variance*. It is a measure of the dispersion of the sampling distribution of a statistic. Standard errors are used to establish *confidence intervals* for the statistics being analyzed.

State augmentation students: In the base year, certain states funded a *sample* of additional schools in the state to produce a representative sample of schools in the state. In this sense, the state's sample was "augmented" to maximize the utility of the NELS:88 data for those states. The students from those base year schools were designated as "augmentation" students, and were followed and surveyed in the first follow-up, though the students had dispersed to many tenth-grade schools. In the second follow-up these students were surveyed again.

Stopout: A student who had one or more occurrences of school non-attendance for 20 or more days (not including any excused absences) who subsequently returned to school. In NELS:88, this term was used for temporary dropouts *within a round* (e.g., out of school in fall 1989 but back spring 1990, as contrasted to 1990 dropouts who were back in school in spring term of 1992).

Student questionnaire: One of the two parts of the student survey (the other part is the *cognitive test battery*). This instrument contained a locator section for *tracing sample* members for future waves of NELS:88 and a series of questions about courses taken, hours spent on homework, and perceptions of the school and the home environment.

Survey day: A day chosen by the school during the data collection period when an *NORC* interviewer and a clerical assistant (or the *School Coordinator* in schools with only a small group of *sample* members) administered the survey to the school's sample of students. The survey day session lasted about three hours for the actual data collection, with about thirty minutes each for preparation and clean-up/preparation of completed materials for mailing.

Teacher questionnaire: Math and science teachers of selected students were asked to complete a teacher questionnaire, which collected data on school and teacher characteristics (including teacher qualifications and experience), evaluations of student performance, and classroom teaching practices.

Teacher, NELS-targeted teacher sample: In the base year and first follow-up, two teacher reports were sought for each student, reflecting a combination of two subjects from four subject areas (English, social studies, science, mathematics). In the second follow-up, one teacher report per pupil was sought for those students who were enrolled mathematics, science, or both, in one of the schools designated for school *contextual data* collection.

Tracing: The locating (and ascertaining of school enrollment status) of NELS:88 *sample* members. Sample members were traced at six points in time subsequent to eighth grade: autumn term 1988, autumn term 1989, spring term 1990, autumn term 1990, autumn term 1991, and spring term 1992.

Transfer student: A NELS:88 *sample* member who moved from one school to another after the subsampling of schools between Phase 1 (the *tracing* of sample members to their school of enrollment) and Phase 2 (the re-verification of *sample* members' school of enrollment).

Unit nonresponse: Failure of a survey unit (for example, at the institutional level, a school, or at the individual level, a respondent, such as a student or a teacher) to cooperate or complete survey instrument. Unit nonresponse may be contrasted to *item nonresponse*, which is the failure of a participating *sample* member to give a valid response to a particular question on a survey instrument.

Validity: The capacity of an item or measuring instrument to measure what it was designed to measure; stated most often in terms of the correlation between scores in the instrument and measures of performance on some external criterion. *Reliability*, on the other hand, refers to consistency of measurement over time. (See entry for "Reliability.")

Variance: See entry for "Population variance" and "Sampling variance."

Weighted estimates: Estimates from a *sample* survey in which the sample data are statistically weighted (multiplied) by factors reflecting the sample design. The weights (referred to as sampling weights) are typically equal to the reciprocals of the overall selection probabilities, multiplied by a *nonresponse* or *poststratification adjustment*. Thus, for example, the 1,035 completed *school administrator questionnaires* in the NELS:88 base year represent a *population* of 38,774 schools. Individual completed cases (that is, base year school administrator questionnaires) may "represent" anywhere from a minimum of 1.5 schools to a maximum of 387.3 schools. To take another example, 12,111 base year questionnaire respondents reported themselves to be male, and a slightly greater number (12,244) reported themselves to be female. When these cases are multiplied by the nonresponse-adjusted student weights to yield a weighted percent that reflects the national population of eighth graders, the estimate for males is 50.1 percent of the 1988 eighth-grade *cohort* while females are estimated to comprise 49.9 percent of the nation's 1988 eighth graders.

Appendix N

NELS:88 Student and Dropout Components:

Descriptions of Data Collection Instruments and Procedures

I. Introduction

Information about instrument development and data collection procedures for the second follow-up student and dropout surveys is contained in this appendix. Detailed information about the base year, first follow-up, and second follow-up school, teacher, and parent surveys may be found in the appropriate data user's manuals for each data file. A general overview of these surveys is included in Appendix A of the *NELS:88 Second Follow-Up Student Component Data User's Manual.*

II. Data Collection Instruments

The data collection instruments for the second follow-up were similar in content and form to those utilized in the prior waves. The instruments included a student, dropout, school administrator, parent, and teacher questionnaire, and a cognitive test for students and dropouts. The new student supplement, added in the first follow-up to elicit demographic information from newly freshened students and base year nonparticipants, was again administered in the second follow-up. An early graduate supplement was added for students who graduated from high school before their in-school data collection session in the spring of 1992.

Instrument development was guided by the research objectives of NELS:88. Questionnaires were designed to meet the longitudinal goals of the study, and items were chosen based on their utility in predicting or explaining future outcomes as measured in the second follow-up or later survey waves. All of the questionnaires employed in the base year, first follow-up, and second follow-up surveys were framed to provide continuity and consistency with earlier NCES education longitudinal studies, as well as to address new areas of policy concern and to reflect recent directions in theory. Where appropriate, NELS:88 drew test and questionnaire content from NLS-72, HS&B, and other NCES studies, such as the National Assessment of Educational Progress (NAEP) and the Schools and Staffing Study (SASS), to ensure a common standard of measurement that would permit comparisons with other important data sources, and maximize the utility of NELS:88 data. For example, NELS:88 mathematics tests were designed so that NELS:88 and NAEP test scores can be equated, and so that HS&B and NELS:88 mathematics test results can be equated as well. Appendix E of the *NELS:88 Second Follow-Up Student Component Data File User's Manual* contains an outline of the items which overlap between the NELS:88 base year, first follow-up, and second follow-up student questionnaires, the NLS-72 base year student questionnaire, and the base year HS&B senior cohort student questionnaire.

A field test of the NELS:88 second follow-up, conducted in 1990 and 1991, examined survey instruments and procedures and played a key role in instrument development. Although the teacher component was not included in the second follow-up field test, the second follow-up field test did include six other survey components: the school administrator, student, the cognitive test battery, dropout, and parent surveys, and the transcript component.[1] Upon completion of field test data collection, the information gathered was used to inform planning for the main study. Analysis of field test data was also used to improve the measurement properties of test and questionnaire items, as well as to identify instrument items which needed to be modified or deleted for reasons of instrument length or item format.

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[1] In the original design of the NELS:88 second follow-up, the teacher survey was included as an optional component of the study. Funding for the option was not received in time for its inclusion in the second follow-up field test.

A detailed description of the second follow-up field test can be found in the *Field Test Report: National Education Longitudinal Study of 1988 Second Follow-Up.*[2]

The content areas of the base year, first follow-up, and second follow-up questionnaires are similar. Since longitudinal data users may benefit from being able to take into account the data that were collected in 1994, the NELS:88 third follow-up questionnaire is included as Appendix Q of the *NELS:88 Second Follow-Up Student Component Data File User's Manual.*

2.1 Student Questionnaire and Cognitive Tests

Sample members who attended school during the spring term of the 1991-92 school year were administered a student questionnaire, either at an in-school or off-campus survey session. Sample members administered a student questionnaire also included: those identified as dropouts at some earlier time but who returned to and remained in school during the spring term of 1992; and students who had left school but already passed the general equivalency degree test (GED) or other equivalency certification. The sixty-minute, self-administered questionnaire collected information on a wide range of topics, including students' background, language use, home environment, perceptions of self, occupational or postsecondary educational plans, jobs and household chores, school experiences and activities, work, and social activities. Information collected by the second follow-up student questionnaire supplies a baseline for the study of the NELS:88 cohort's transition to postsecondary education or entry into the labor market. The second follow-up student questionnaire was available in both English and Spanish.[3]

In addition to the student questionnaire, students completed a series of cognitive tests which were also administered at their in-school or off-campus survey sessions. The combined tests covered four subject areas and included 116 items to be completed in 85 minutes. The cognitive tests are briefly described below:

- **Reading Comprehension** (21 items, 21 minutes) consisted of five short passages followed by comprehension and interpretation questions, such as interpreting the author's perspective, understanding the meaning of words in context, and identifying figures of speech. As in first follow-up, two versions of the reading test were utilized, differing in degree of difficulty.

- **Mathematics** (40 items, 30 minutes) assessed both simple mathematical application skills, as well as more advanced skills of comprehension and problem solving. Test items included word problems, graphs, quantitative comparisons, and geometric figures. Three versions of the mathematics test were utilized in the second follow-up and varied in level of difficulty.

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[2] Dowd, K. et al.; v. 1; 1991; Chicago: NORC. ERIC ED 335-418.

[3] 41 students completed the Spanish-language questionnaire in the NELS:88 second follow-up. Because of the small number of questionnaires completed in Spanish, a separate flag was not created for these cases. The percentage of questionnaires completed in Spanish -- around 0.2% -- is similar to the percentage of HS&B seniors who opted to complete Spanish-language questionnaires in 1980/1982.

- **Science** (25 items, 20 minutes) contained questions drawn from the fields of life, earth and physical sciences. Emphasis was placed on the comprehension of underlying concepts and scientific reasoning ability.

- **History/Citizenship/Geography** (30 items, 14 minutes) assessed knowledge of important issues and events in American history. Citizenship items included questions on the operation and structure of the federal government and the rights and obligations of citizens. Geography questions touched on patterns of settlement and food production shared by various societies.

The National Opinion Research Center's subcontractor, the Educational Testing Service (ETS), developed the cognitive test battery for the second follow-up. Six forms of the cognitive test battery were produced in the second follow-up, each comprising a different combination of mathematics and reading difficulty levels. Each sample member's test form was determined by his or her scores on the base year and/or first follow-up mathematics and reading tests; freshened students and first follow-up non-respondents received the intermediate version of the second follow-up cognitive test battery. The purpose of the multilevel design of the second follow-up cognitive test battery was to guard against ceiling and floor effects which may occur when testing must span four years of schooling. This adaptive approach tailors the difficulty of the reading and mathematics tests to the ability of the respondent, thereby leading, given limitations in testing time, to a more accurate measurement than a single level design.

Properties of the tests and the test item reliabilities are discussed in the *forthcoming NELS:88 Base Year through Second Follow-Up Psychometric Report*, the *NELS:88 First Follow-Up Final Technical Report*, and the *Psychometric Report for the NELS:88 Base Year Test Battery*,[4] all obtainable from NCES.

2.2 Dropout Questionnaire

During data collection January through October 1992, a dropout questionnaire was administered to sample members who, based on data gathered through administration of a status screener, were not in an academic program leading to a high school diploma and had not received a GED by the spring of 1992. The dropout questionnaire collected data about the last school attended by the sample member, the school's climate, reasons for leaving school, and actions school personnel, parents, and friends took when the respondent stopped going to school. Respondents also reported on their likelihood of returning to and graduating from high school, and described their current activities, employment history, and future plans. The hour-long, self-administered questionnaire--available in either English or Spanish--was normally completed with an NORC interviewer present, at a group or single survey session. However, in some cases the dropout questionnaire was administered as a telephone interview.

In addition to the dropout questionnaire, an 85-minute cognitive test battery was administered to dropouts when possible. Because of the difficulty in collecting test data from dropouts, and because data from many dropouts was collected in telephone interviews which preclude testing, the NELS:88 second follow-up achieved a comparatively low 41.7 percent weighted cognitive test completion rate for dropouts.

The dropout questionnaire was designed to facilitate comparisons with the NELS:88 second follow-up student questionnaire, the first follow-up dropout questionnaire, and the HS&B 1982 dropout questionnaire. This item overlap with the student questionnaire permits users to contrast factors such as school environment, family life, aspirations, and self-perceptions of students with the responses of dropouts. The overlap of 1982 and 1992 dropout items facilitates comparison of contemporary dropouts with those of a decade before.

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[4] Rock, D.A., and Pollack, J.M. April 1991.

2.3 Adapting Student and Dropout Questionnaires for Telephone Administration

To adapt the second follow-up student and dropout questionnaires for telephone interviewing, two abbreviated versions of the instruments were administered during the final weeks of data collection. Adaptation of the student and dropout questionnaires for telephone administration was guided by the need to preserve each question's original meaning while wording each question so that it made sense when read aloud. One abbreviated version of the student and dropout questionnaires excluded a small number of questions which did not lend themselves to being read aloud. A second abbreviated version of the questionnaires was administered to sample members who explicitly refused to complete the full-length instrument and consisted mainly of locator information and key items. The mode of administration for the abbreviated instruments was primarily a telephone interview; however, a small percentage of abbreviated questionnaires were completed by personal interview.

2.4 New Student Supplement

First-time NELS:88 participants--due to freshening or previous ineligibility or nonparticipation--completed the new student supplement questionnaire, which was available in English and Spanish. New student supplement data were also obtained for a number of first follow-up freshened students who had completed a student questionnaire but had not completed a new student supplement in 1990. The self-administered supplement took approximately 15 minutes to complete, and contained questions that gathered basic demographic information (such as birthdate, sex, family socioeconomic status, and race/ethnicity) about students and their families which was gathered by the base year questionnaire, but not repeated in the student questionnaire for later rounds.

2.5 Early Graduate Supplement

NELS:88 participants who graduated from high school or who obtained equivalency certification such as the GED prior to data collection in the spring of 1992 completed the second follow-up early graduate supplement to the student questionnaire. The intent of this supplement was to document the reasons for and the circumstances of early graduation, the adjustments required to finish early, and respondents' activities compared with those of other school survey members. The items for the second follow-up early graduate supplement were modeled on those used in the HS&B sophomore cohort early graduate supplement administered in the HS&B first follow-up in 1982.

2.6 Contextual Components

In addition to students, NELS:88 collected data from students' parents, teachers, and school administrators, in order to provide researchers with contextual sources with which to integrate and analyze the primary student data. Course offerings data were also collected for schools in the school effectiveness study. General information about instrument development and data collection procedures for these components is contained in Appendix A of the *NELS:88 Second Follow-Up Student Component Data User's Manual*. More information about the base year, first follow-up, or second follow-up school, teacher, and parent components may be found in the appropriate user's manuals for each file.

III. Second Follow-up Data Collection

This section describes the data collection procedures for the student and dropout components of the NELS:88 second follow-up. The design of the second follow-up survey closely resembled that of the first follow-up survey and was executed in three phases which spanned two years. Self-administration and telephone administration were the primary modes of data collection for the student and dropout components of the second follow-up. Although data collection did not occur for the transcript component until the third phase of the study in 1992, pre-data collection activities related to the transcript component were conducted in the first and second phases of the study in 1991. Phase three of the study was conducted in 1992 and constituted the data collection effort. Figure 3-1 summarizes the activities conducted during the three phases of the second follow-up.

3.1 Second Follow-Up Pre-Data Collection Activities

Phase 1. Conducted from January through June 1991, phase 1 included securing state, district, and school-level cooperation for the study as well as tracing sample members. State cooperation with NELS:88 was secured for all fifty states and the District of Columbia. District and school-level cooperation were secured for first follow-up schools with four or more sample members still in attendance in the spring of 1991.

Tracing sample members served two purposes: to locate sample members for data collection purposes, and to define the schools to be included in the second follow-up sampling process. As in the first follow-up, interviewers determined the enrollment status of sample members by tracing the sample members to their first follow-up or new school of attendance. If an interviewer was unable to confirm school enrollment for a cohort member through the first follow-up school or a new school, the interviewer traced the sample member to a home address to confirm that the student was enrolled in a school or that the student had left school. Confirmation of a sample member's enrollment status determined which type of questionnaire--student or dropout--the sample member would be administered during the data collection period.

The second purpose of tracing was to determine the school sample. The second follow-up study was designed such that only students attending a school included in the second follow-up school sample would receive the full complement of contextual data including school administrator, parent, and teacher reports. (For sample members outside of the sampled schools, only the parent data was collected of the contextual components.) To maximize the number of students to receive the full complement of contextual data, student tracing determined the number of sampled students at each school. The school sample was then drawn so that the greatest number of students would be included in the school sample and receive the full complement of contextual data.

Phase 2. From September to December 1991, phase 2 pre-data collection activities occurred for all components of the study, and some phase 1 activities continued. District and school-level cooperation were gained for any schools selected for the second follow-up sample for which cooperation was not gained in phase 1. Final district and school contacting results are summarized in Table 3.1-1. Tracing continued for sample members who were not located during phase 1, and enrollment was reverified for students who were traced to a school which was selected for the second follow-up school sample. Students attending a school not included in the second follow-up school sample and sample members who had left school were also traced again to their school of attendance or to a home address.

Figure 3-1: Second follow-up data collection phase diagram

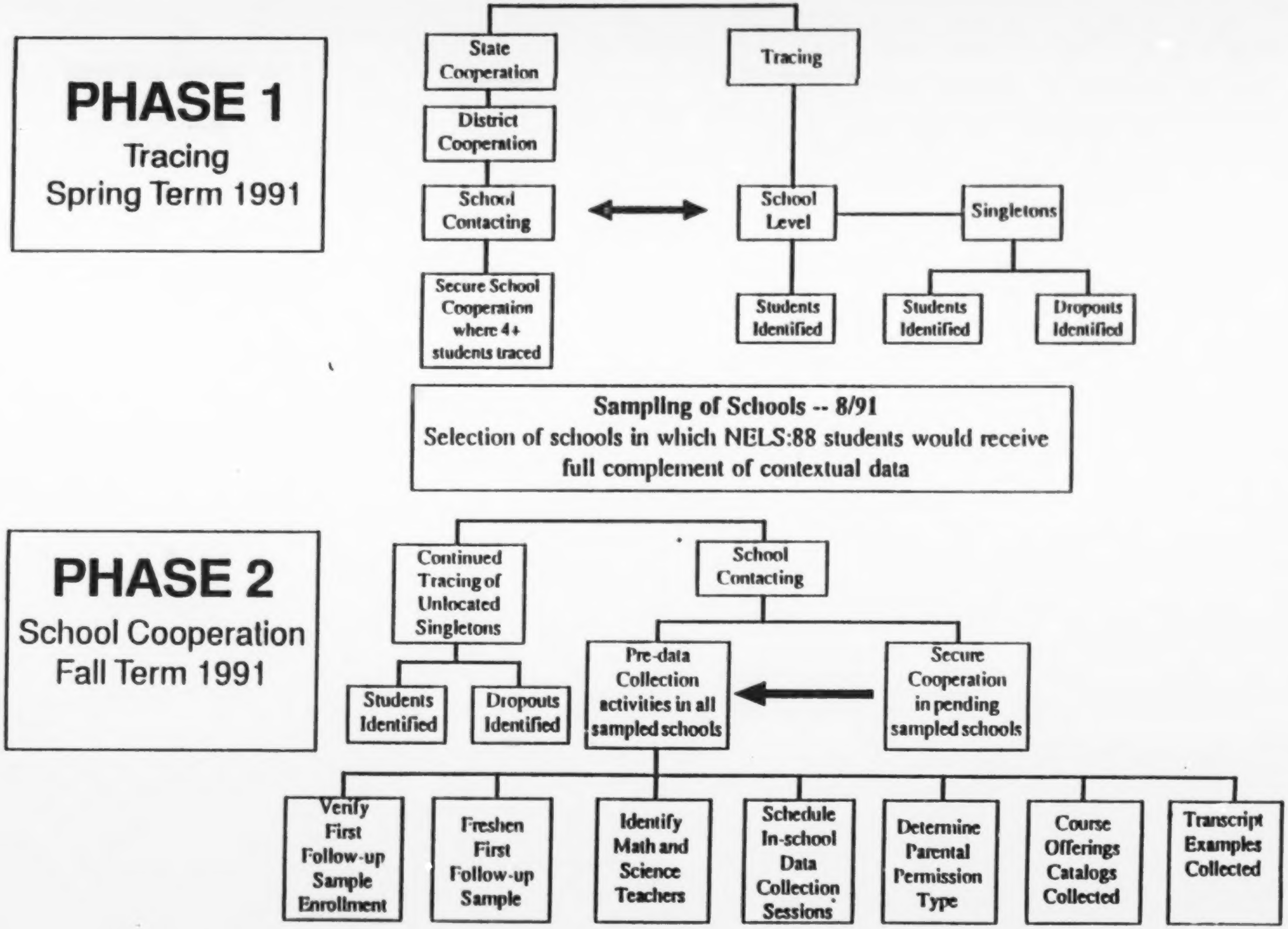

PHASE 1
Tracing
Spring Term 1991
State Cooperation
District Cooperation
School Contacting
Secure School Cooperation where 4+ students traced
Tracing
School Level
Singletons
Students Identified
Students Identified
Dropouts Identified
Sampling of Schools -- 8/91
Selection of schools in which NELS:88 students would receive full complement of contextual data
PHASE 2
School Cooperation
Fall Term 1991
Continued Tracing of Unlocated Singletons
Students Identified
Dropouts Identified
School Contacting
Pre-data Collection activities in all sampled schools
Secure Cooperation in pending sampled schools
Verify First Follow-up Sample Enrollment
Freshen First Follow-up Sample
Identify Math and Science Teachers
Schedule In-school Data Collection Sessions
Determine Parental Permission Type
Course Offerings Catalogs Collected
Transcript Examples Collected

Figure 3-1 (cont.): Second follow-up data collection phase diagram

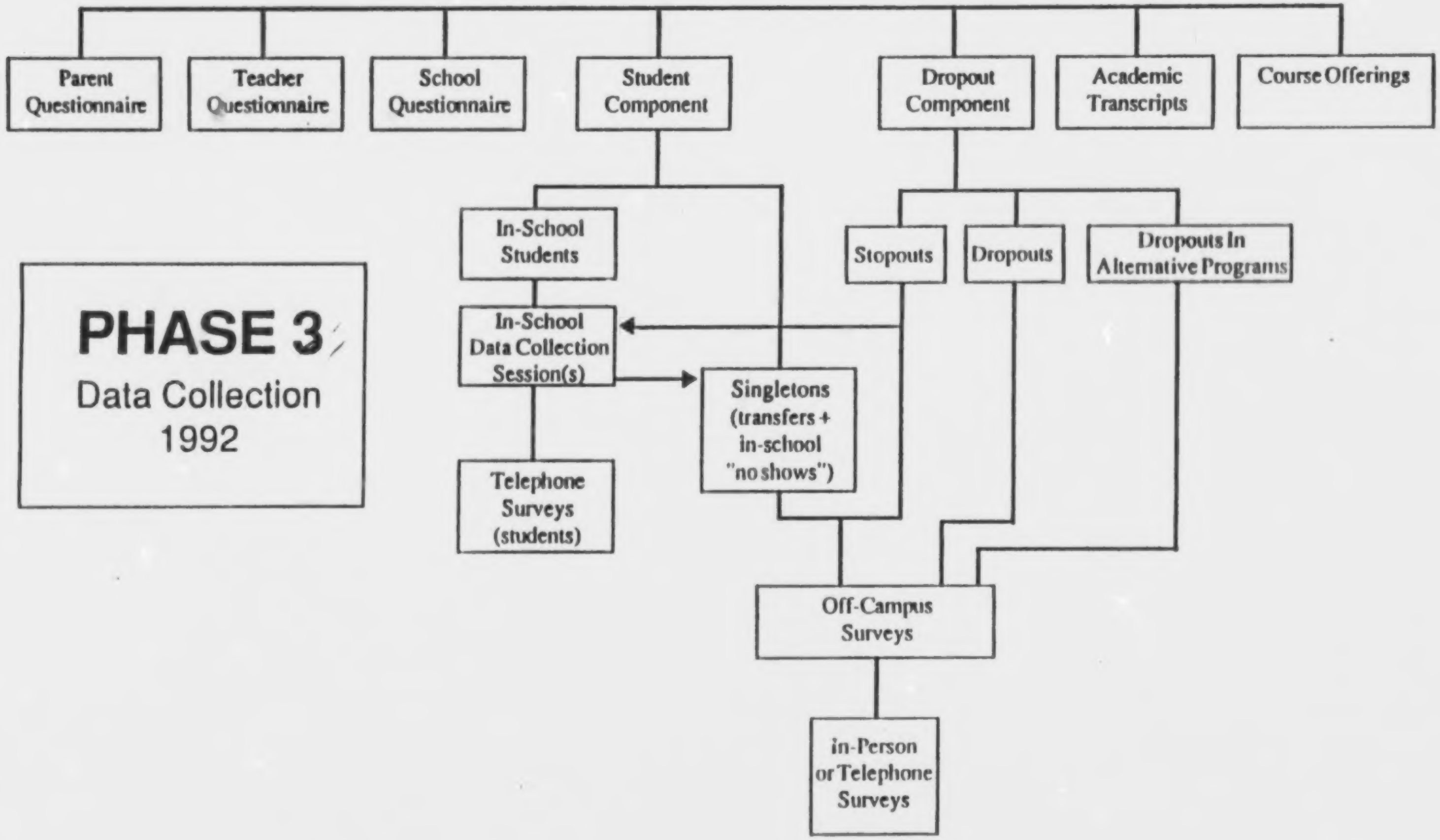

Parent Questionnaire
Teacher Questionnaire
School Questionnaire
Student Component
Dropout Component
Academic Transcripts
Course Offerings
In-School Students
In-School Data Collection Session(s)
Telephone Surveys (students)
Singletons (transfers + in-school "no shows")
Stopouts
Dropouts
Dropouts In Alternative Programs
Off-Campus Surveys
In-Person or Telephone Surveys
PHASE 3
Data Collection
1992

Table 3.1-1
Summary of NELS:88 second follow-up district/diocese and school contacting

	Eligible Sample[a]	**Agreed to Participate**	**Cooperation Rate**
District/Diocese Contacting:			
Public	862	853	99.0%
Catholic/ Other Private	52	52	100.0%
Total	914	905	99.0%
School Contacting:			
Public	1155	1145	99.1%
Catholic/ Other Private	232	228	98.3%
Total	1387	1373	99.0%

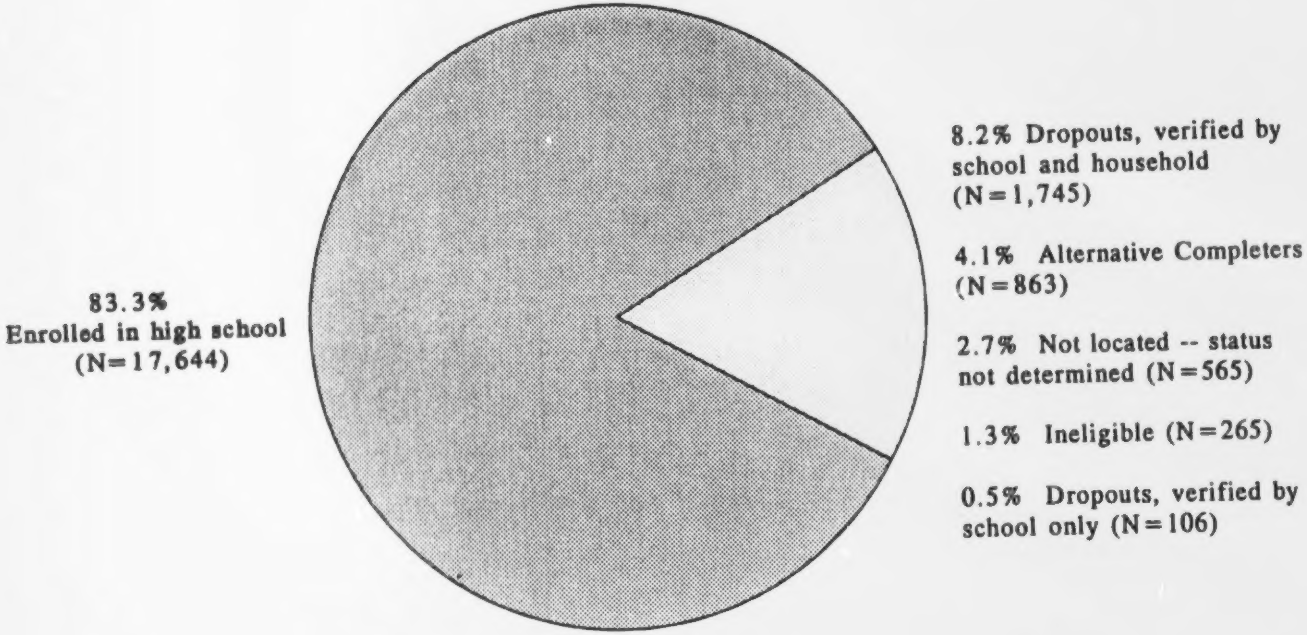
[a] This column represents the portion of the phase 1 sampled schools (*N*=1,500) that had at least one core sample member still enrolled at the end of the school contacting phase (phase 2) of the study. These numbers reflect the schools at which cooperation with the study was gained rather than the final subset of NELS:88 schools whose students were included in the contextual sample.

Interviewers visited each of the second follow-up schools to conduct activities in preparation for data collection for all components of the study. For the student component, they scheduled in-school data collection sessions and worked with school personnel to identify any procedures necessary to obtain parental permission for surveying students. Using school rosters, interviewers freshened the student sample to allow a random sample of twelfth-graders who were unable to participate in the study previously a chance to be selected for the second follow-up. (Refer to Chapter III of this manual for a complete discussion of freshening the student sample.)

Data were collected for the contextual components (the parent, teacher, school administrator, academic transcripts, and course offerings and enrollments components). Interviewers collected parent address and telephone information for the parent survey. To identify the sample for the teacher survey, they compiled the names of mathematics and science teachers of the student sample members. Course catalogs were collected, and interviewers collected samples of student transcripts to inform data collection and data preparation for the high school transcript component.

Final Tracing Results. Figure 3-2 summarizes second follow-up tracing results. After the tracing of sample members was completed, of the 21,188 sample members, 97.3 percent (*N*=20,623) of the second follow-up sample had been located. Of the 21,188 sample members, 83.3 percent were enrolled in high school, 8.2 percent were verified dropouts, 0.5 percent were identified by school officials as dropouts but were not confirmed as such, 4.1 percent were sample members who had already

Figure 3-2: Second follow-up tracing results (*N*=21,188)



completed an alternative program, 1.3 percent were deemed ineligible to participate in the second follow-up study (e.g., deceased or moved out of the country), and 2.7 percent could not be located. (Due to rounding, the above percentages sum to 100.1 percent.) Of those sample members found to be enrolled in high school, 87.9 percent of the sample were located at the school the student attended in the first follow-up, while the remaining 12.1 percent were located at a school other than their first follow-up school.

3.2 Second Follow-Up Data Collection Activities

Phase 3. Data collection for the second follow-up was conducted from January through December 1992. Although the data collection periods of the individual components of the study were staggered, there was a high degree of overlap between the data collection periods of the individual components, and most data was collected from January through June 1992, the spring term of the 1991-1992 academic year. Transcripts were collected from August 1992 through March 1993.

Most of the components of the survey utilized more than one mode of data collection, usually self-administration and telephone administration of the survey instruments. In some cases abbreviated versions of the instruments were implemented.

3.3 Second Follow-Up Student Survey and Cognitive Tests

In-School Survey Sessions. From January to June 1992, in-school survey sessions were held in all cooperating NELS:88 schools still enrolling second follow-up sample members. Second follow-up data collection procedures were very similar to those used in the first follow-up. Student questionnaires and four cognitive tests in math, science, reading, and social studies were administered in group data collection sessions of approximately 9 students.

Survey administration was usually conducted in a school classroom or library and consisted of several steps. Students first completed the student questionnaire, and, if applicable, the new student supplement or the early graduate supplement. Students who had transferred into or out of a school within the two weeks prior to the survey session were asked to report on their previous school of attendance. Transfer students who had been at the surveyed school for two or more weeks were asked to report on their current school. Students were asked to sign a form at the end of the questionnaire granting permission for the release of transcripts to the study.

After the students completed the student questionnaires, an 85 minute battery of cognitive tests was administered. The tests consisted of four timed sections devoted to mathematics, reading, science, and social studies (history/government). Once the test battery was completed, an attempt was made to retrieve missing (or inappropriately marked) questionnaire items before the student left the classroom.[5] At the end of the survey session, arrangements were made to conduct make-up sessions for students who were scheduled but unable to attend the initial survey session or whose schedules required that they leave before completing both instruments. The second follow-up study attempted to collect a complete questionnaire and cognitive test from students and dropouts; however, for some student sample members only an abbreviated version of the student or dropout questionnaire was collected, or the cognitive test was not collected at all.

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[5] At data collection sessions, interviewers reviewed the questionnaires to ensure that all critical items were completed. An oval indicating "no retrieval" was marked whenever the missing data could not be retrieved due to respondent refusal or inability to clarify a vague response.

Off-Campus Survey Sessions. Off-campus survey sessions, typically attended by one to three students, were conducted primarily from March to July 1992. Students who were not enrolled in sampled schools, who had missed in-school data collection sessions, or who were enrolled in schools that had refused to participate in the study were invited to off-campus sessions and administered the student questionnaire and cognitive tests. Dropouts were also asked to attend these sessions and were surveyed alongside sample members who were currently enrolled in school. Off-campus survey sessions in the second follow-up were nearly identical to those in the first follow-up. If a sample member was unable to attend an off-campus group survey session, he or she was surveyed either over the telephone or in-person. When the student (or dropout) questionnaire was administered over the telephone, cognitive test data were not collected from the sample member. Transcript release forms were mailed to telephone respondents for their signature.

3.4 Dropout Survey

The NELS:88 second follow-up dropout survey sought to interview all sample members who had left school prior to graduation, including both first follow-up dropouts who had not returned to school and sample members who dropped out after the first follow-up. All sample members appear on the student data file regardless of their spring 1992 enrollment status. Basic classification variables and test data appear for both students and dropouts, though dropout questionnaire data appear separately on the dropout component data file.

School Enrollment Classification and Data Collection. In order to determine which sample members should complete a dropout questionnaire, school enrollment status was classified for all sample members during the spring of 1992.

Four types of enrollment classifications were identified. The first were high school students who were enrolled in a school which offered programs ending in the granting of a diploma. These students were administered the student questionnaire and, when possible, the cognitive test battery. Early graduates were included in this classification, and were asked to report retrospectively on the school from which they graduated and to complete supplemental questions about their reasons for graduating early.

The second type were sample members who dropped out of high school but later re-enrolled in a high school program to obtain a high school diploma. These sample members were administered the student questionnaire and, when possible, the cognitive test battery.

The third type were sample members who dropped out of high school but went on to seek an equivalent to a high school diploma such as the General Educational Development test (GED). If an alternative completer had finished the requirements of his or her equivalency program, the individual was classified as a "completer" (in effect, an early graduate by alternative means) and the student questionnaire (including the early graduate supplement) was administered. If the alternative completer had not yet fulfilled the requirements for certification, the sample member was administered a dropout questionnaire. In both cases, the cognitive test battery was also administered when possible.

The fourth type were dropouts. These sample members had left their high school by the spring of 1992 and were not working toward an alternative certification. Dropouts were administered a dropout questionnaire and, when possible, the cognitive test battery.

Regardless of whether a dropout completed a student or dropout questionnaire, data collection efforts for the dropout component of the second follow-up were similar to those in the first follow-up survey. Interviewers attempted to survey most dropouts in off-campus survey sessions with testing conditions similar to in-school sessions.

For analytical purposes, sample members classified as alternative completers can be included or compared with either high school completers or dropouts. Additionally, alternative completers can be examined separately, depending on the needs of the analyst. For a complete description of the dropout component, see *The NELS:88 Second Follow-Up: Dropout Component Data File User's Manual*.

3.5 School Effectiveness Study

Since there was 97.8 percent overlap between school effectiveness study schools and NELS:88 core study schools, data were collected for students in these schools using the same data collection procedures as second follow-up cohort students. Most SES students also received an additional forty minute free-response cognitive test after they completed the eighty-five minute test battery. The subject area of the free-response test--either mathematics or science--was randomly selected for each school. Unlike the data collection procedures for the student cohort, SES students who were no longer attending the school with which they were associated were not traced or surveyed; however enrollment status was gathered for these students from the SES schools. The transcript, parent, school administrator, and course offerings and enrollment components were also conducted for the SES sample members. A more detailed discussion of the school effectiveness study will be presented in forthcoming documentation, which will accompany the release of those data.

3.6 Followback Study of Excluded Students

In the first follow-up study, most classification changes were made for a sample of students who had been excluded from the base year study. Of the 618 base year ineligible sample members (BYIs), 580 were located and 312 were reclassified as eligible during the first follow-up. (Table 4.2.4-1 of the *NELS:88 Second Follow-Up Student Component Data File User's Manual* contains additional completion rate data for the BYI study.) In the second follow-up, the remaining ineligible students--BYIs who were ineligible in the first follow-up or more rarely, students who were eligible in the base year but who became ineligible in the first follow-up through the occurrence of some sort of incapacitation--were pursued as a part of the Followback Study of Excluded Students.

The Followback Study of Excluded Students (FSES) of the NELS:88 second follow-up attempted to reassess the eligibility status and ascertain the enrollment status of students who: 1) had been excluded because of linguistic, mental, or physical obstacles to participation when the baseline sample of eighth graders was drawn in the 1987-88 school year, and were subsampled into the Base Year Ineligible Study in the first follow-up; 2) were eligible in the base year but became ineligible in the first follow-up; or, 3) were identified as ineligible when selected through the freshening process in the first follow-up. If the students had since become eligible for NELS:88, the followback study attempted to survey them.

The followback study continued the first follow-up base year ineligible study for several purposes. First, if the 5.3 percent of the potential base year sample declared ineligible differed in key characteristics or outcomes from the sample of students included in NELS:88, this difference could bias baseline results and subsequent longitudinal measurements. By learning more about these excluded students and their current school enrollment status, one might correct for potential undercoverage bias that could affect key national estimates, such as dropping out between eighth and twelfth grade.

Second, an individual's eligibility status could potentially change. A student excluded on language grounds in 1988 or 1990 could have gained sufficient proficiency in English by 1992 to complete the student questionnaire. Like the complementary activity of sample freshening, the followback study of excluded students helped to generate a nationally representative sample of twelfth-grade students.

Third, eligibility rules were modified in the first follow-up and retained in the second follow-up to allow completion of the student questionnaire in Spanish in addition to English. By giving 1988 and/or 1990 excluded students who could complete a questionnaire only in Spanish the opportunity to do so in 1992, the revised eligibility rules of the first follow-up were carried back to the base year cohort.

Data collection procedures. Data collection for the followback study of base year excluded students took place during the main study data collection effort between April and October 1992. Interviewers attempted to identify excluded students who were eligible to be added to the longitudinal sample in the second follow-up. They obtained the following information about the excluded student from the student's current school, school last attended, or the student's home:

- **Sex (if unknown):** male or female;
- **Race/ethnicity (if unknown):** white, Black, Hispanic, Asian/PI, American Indian, other;
- **School enrollment status:** student, dropout, or dropout in alternative program;
- **Eligibility:** English/Spanish language proficiency, lack of mental or physical disability (i.e., ability to complete a questionnaire), reading ability level of at least eighth grade

After collecting this information, interviewers attempted to determine whether or not the student was capable of meaningful participation in the survey under normal conditions. To make this assessment, interviewers were instructed to obtain reports from persons with first-hand knowledge of the student, such as special education, bilingual education, or language arts teachers or a guidance counselor. Interviewers often spoke with several staff members to identify the staff member who was most qualified to assess whether or not the student could participate in the second follow-up survey. Unless there were severe mental or physical handicaps or lack of facility with written English or Spanish and the member was unable to complete the survey instruments under normal circumstances, the student was considered eligible to participate in the study.

The results of data collection for FSES are summarized in Table 3.6-1. Eligibility information was gathered for 94.7 percent of the excluded sample members. For excluded students who were identified as eligible, student or dropout questionnaires were administered either in-person or over the telephone. Cognitive tests were administered to a small percentage of these students. For students who remained ineligible, school enrollment status and other key characteristics were obtained. For seniors who remained ineligible, high school transcripts were also collected. Data for these students are included on the transcript component data files.

3.7 Second Follow-Up Data Collection Results

Tables 3.7-1 and 3.7-2 summarize the data collection results for the student and dropout components of the NELS:88 second follow-up study. Panel completion rates reported in table 3.7-2 and represent the proportion of base year completers who were also first follow-up completers, for whom a second follow-up questionnaire was completed as well. (Eighth grade cohort members who failed to participate in 1988, in 1990, or in both rounds, are excluded from the base for this statistic.) Completion rates in 1992 for 1988-90 participants are reported overall and by subgroups of interest.

However, one may wish to view panel maintenance and attrition from additional perspectives. For example, one may wish to consider what proportion of the 1990 first follow-up-retained 1988-eligible base year cohort has participated in all three waves of NELS:88 to date. When the panel so defined--that is, all 1990-retained 1988-eligible students and dropouts, including those who have died or suffered a grave impairment that has made them ineligible, and those who have been out-of-scope (out of the country) for either or both follow-up waves--the proportion who participated (that is, completed a student/dropout questionnaire) in all three (1988, 1990, and 1992) waves is 84 percent. Another statistic of interest is the proportion of base year participants successfully resurveyed in each follow-up round. Some 95 percent (94.7%) of base year questionnaire completers also completed a questionnaire in the first follow-up, and 93 percent (93.1%) of base year questionnaire completers participated in the second follow-up. About 90 percent (89.7%) of base year participants completed both the first (1990) and second (1992) follow-up questionnaires.

Table 3.6-1 Results of the NELS:88 followback study of excluded students (FSES) *N*=370

ORIGIN AND ELIGIBILITY STATUS
AS OF THE SECOND FOLLOW-UP

	Base Year Ineligibles		First Follow-Up Ineligibles		Total in FSES Study	
	N	% of total	*N*	%	*N*	%
Eligible	74	24.4%	28	100.0%	102	27.6%
Ineligible	185	61.1%	38	100.0%	223	60.3%
Out-of-Scope	28	9.2%	1	100.0%	29	7.8%
Not Located	16	5.3%	0	0.0%	16	4.3%
Total BYI Sample Members	303*	100.0%	67	100.0%	370	100.0%

* Of the original 674 Base Year Ineligibles, 56 were found to be sampling errors in the first and second follow-ups, 312 were deemed eligible for participation in the first follow-up, and 3 became deceased, leaving the total of 303 BYIs in the chart above.

Table 3.7-1 NELS:88 second follow-up component survey completion rates by selected characteristics

	Student sample Completion rates		Student 12th grade test[a] Completion rates		Dropout/Alternative[b] sample Completion rates		Dropout/Alternative 12th grade test[c] Completion rates		School questionnaire[d] Completion rates		School questionnaire[e] Completion rates	
	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted
Total	91.0	92.5	76.6	78.8	88.0	87.6	41.7	40.3	NA	97.1	98.3	98.2
Participated	16,842		13,267		2,378		959		1,326		15,409	
Selected	18,209[f]		16,842		2,714		2,378		1,366		15,695	
School type[g]												
Public	94.7	95.3	76.8	78.9	NA	NA[h]	NA	NA[h]	NA	97.2	98.4	98.4
Catholic	98.4	98.0	79.7	84.5	NA	NA	NA	NA	NA	97.1	96.6	96.7
Other private	94.8	95.5	73.1	75.6	NA	NA	NA	NA	NA	96.0	98.5	97.2
Urbanicity[g]												
Urban	95.0	95.8	73.6	76.7	NA	NA[h]	NA	NA[h]	NA	97.0	98.2	98.3
Suburban	94.4	95.2	74.9	75.7	NA	NA	NA	NA	NA	97.4	98.5	98.2
Rural	95.5	95.5	82.4	85.3	NA	NA	NA	NA	NA	96.6	99.8	98.0
Region[g]												
Northeast	94.3	94.7	77.6	76.7	NA	NA[h]	NA	NA[h]	NA	94.7	97.9	96.8
South	95.4	95.8	77.7	81.7	NA	NA	NA	NA	NA	97.3	98.2	98.4
Midwest	96.1	95.8	78.6	80.7	NA	NA	NA	NA	NA	97.8	98.5	98.7
West	92.9	95.4	72.2	74.2	NA	NA	NA	NA	NA	98.3	98.7	98.6
Ethnicity												
Asian/PI	91.7	92.7	75.2	75.5	74.7	82.4	47.6	35.7	NA	NA	98.2	98.9
Hispanic	86.6	89.8	73.9	76.6	88.3	87.5	35.6	36.1	NA	NA	98.8	98.9
Black	88.1	90.5	74.6	77.1	84.8	83.6	37.2	38.7	NA	NA	98.3	98.0
White	93.5	94.2	77.8	80.1	89.7	89.5	44.2	42.4	NA	NA	98.3	98.0
Am. Indian	90.3	86.5	74.0	74.3	97.6	95.8	51.5	49.3	NA	NA	98.7	98.7
Refused/Missing[i]	28.5	33.2	22.2	31.1	55.9	61.5	23.5	25.0	NA	NA	97.9	97.8

[a] 12th grade cognitive test coverage rate for each student who completed a questionnaire.

[b] Alternative completers could have completed either a student or dropout questionnaire, depending on status during data collection. 350 alternative sample members completed a student questionnaire, and 457 completed a dropout questionnaire.

[c] 12th grade cognitive test coverage rate for each dropout who completed a questionnaire.

[d] 12th grade school completion rate (for school questionnaire) of eligible contextual schools, where at least one student completed a questionnaire.

[e] 12th grade school questionnaire coverage rate for each student who completed a questionnaire and was enrolled in an eligible contextual school.

[f] 565 unlocatable cases were assumed to be eligible students for the purposes of calculating student completion rate, and are included in the total of 18,209.

[g] Refers to second follow-up school.

[h] Not Applicable -- Completion rates by school type, urbanicity, and region are calculated based on the school a student attended in the second follow-up. Because dropouts are not linked to schools on the public use magnetic tape, it is not possible to calculate dropout completion rates for these subgroups.

[i] Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample members who did not participate in the second follow-up.

Table 3.7-2 NELS:88 second follow-up completion rates for base year-first follow-up panel participants by selected characteristics[a]

	Student/Dropout questionnaire (BY, F1 and F2) Completion rates		Student/Dropout cognitive test[b] (BY, F1 and F2) Completion rates		Student/Dropout cognitive test[c] (BY and/or F2) Completion rates	
	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted
Total	94.7	95.1	69.6	72.2	99.0	99.0
Participated	16,489[d]		11,902		16,331	
Selected	17,337		16,489		16,489	
School type[e]						
Public	94.3	94.7	69.0	71.4	99.0	99.1
Catholic	97.9	97.0	74.1	78.6	99.1	99.2
Other private	97.4	97.0	73.0	73.7	99.2	98.7
Urbanicity[e]						
Urban	93.5	95.1	64.3	69.5	98.4	98.8
Suburban	95.5	95.3	69.1	70.1	99.0	98.9
Rural	94.8	94.9	74.6	77.2	99.5	99.4
Region[e]						
Northeast	94.8	95.1	70.3	71.3	99.0	98.6
South	94.1	94.5	68.2	73.1	99.1	99.1
Midwest	95.7	96.0	74.9	76.4	99.2	99.5
West	94.6	95.1	63.7	65.7	98.5	98.7
Ethnicity						
Asian/PI	93.3	95.0	71.5	71.9	99.6	99.6
Hispanic	93.1	94.4	63.9	65.5	98.2	98.3
Black	92.4	92.6	59.6	67.0	98.6	98.6
White	95.5	95.7	72.1	74.2	99.2	99.2
Am. Indian	94.1	91.3	64.8	64.0	99.7	99.4
Refused/Missing[f]	81.1	75.0	38.3	55.6	100.0	100.0
Minority schools[e]						
Schools with more than 19% minority students	92.2	93.5	55.1	59.3	98.6	98.4
Schools with less than or equal to 19% minority students	95.0	95.3	71.0	73.5	99.1	99.1

[a] These panel completion rates are the proportion of base year-first follow-up completers for whom a second follow-up questionnaire was completed but excludes base year nonparticipants. Refer to section 3.7 of this appendix for information on alternative approaches to calculating panel completion rates.

[b] Cognitive test coverage rate for each sample member who has completed a BY student questionnaire, F1 and F2 student/dropout questionnaire.

[c] Cognitive test coverage rate for each sample member who has completed a BY student questionnaire and/or a F2 student/dropout questionnaire.

[d] Sample members who participated in the BY, F1 and F2.

[e] Refers to 8th-grade schools.

[f] Refused/Missing refers only to the status of a sample member's ethnicity. It does not refer to sample member nonparticipants.

Appendix O

NELS:88 Base Year and First Follow-Up

Sample Design and Implementation

I. Introduction

This appendix describes the design and procedures used for selecting schools and students into the NELS:88 base year and first follow-up samples. It provides information on the calculation of sample weights and the relative efficiency of the sample design. The appendix also provides information about procedures used to adjust sample weights for nonresponse.

II. NELS:88 Sample Design

The following section describes the sample design of NELS:88, from its base year inception through the first follow-up. Beginning from a straightforward two-stage stratified sample, the complexities of the NELS:88 sample design have grown exponentially with each subsequent wave.

2.1.1 Base Year Sample Design[1]

The NELS:88 base-year survey employed a two-stage, stratified sample design, with schools as the first-stage unit and students within schools as the second-stage unit. Within each stratum, schools were selected with probabilities proportional to their estimated eighth grade enrollment to achieve virtual self-weighting. In addition, schools were oversampled in certain special strata so that policy-relevant subgroups would be adequately represented in the sample. Within each school approximately 26 students were to be randomly selected (typically, 24 regularly sampled students and two, on average, OBEMLA-supplement Hispanic and Asian/Pacific Islander oversampled students). In schools with fewer than 24 eighth graders, all eligible students were selected. Because of the incidence of small schools in the NELS:88 sample, the average within-school sample size for the base year was 25 students (or 23 participating students). From a national frame of about 39,000 schools with eighth grades, a target sample size of 1,032 schools was set. Some 1,052 schools--815 public and 237 private--participated and provided usable eighth grade student data.

NORC's sampling frame was the school database compiled by Quality Education Data, Inc. (QED) of Denver, Colorado. The QED list contained information about whether a school was urban, suburban, or rural. NORC used this information for stratification purposes. The QED list did not at that time contain information about the racial/ethnic composition of individual public schools usable for the NELS:88 sampling frame. Racial/ethnic composition data were obtained from Westat, Inc. in its capacity as an NORC subcontractor for the NELS:88 base year study. As part of their work on the National Assessment of Educational Progress (NAEP), Westat had obtained data from the Office of Civil Rights (OCR) and from other sources (e.g., district personnel) that identified those schools with a minority enrollment of greater than 19 percent. Use of this data set facilitated the explicit stratification and allocation of schools with very large percentages of black or Hispanic students. Stratification information on whether a school was public, Catholic (private), or other private was obtained from the QED list and lists of private schools.

2.1.2 First Follow-Up Sample Design

There were three basic objectives for the NELS:88 first follow-up sample design. First, the sample was to include approximately 21,500 students who were in the eighth-grade sample in 1988

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[1] Readers who desire more detail on the base year sample design should consult the *NELS:88 Base Year Sample Design Report*.

(including base year nonrespondents). This longitudinal cohort was to be distributed across 1,500 schools. Second, the sample was to constitute a valid probability sample of all students currently enrolled in the tenth grade in the 1989-1990 school year. This entailed freshening the sample with students who were tenth graders in 1990 but not in the eighth grade during the 1987-1988 school year. Third, the first follow-up was to include a sample of students who had been deemed ineligible for base year data collection (because physical, mental, or linguistic barriers prevented them from participating) so that those able to take part could be added to the first follow-up student sample, and demographic and school enrollment information could be obtained for them.

Longitudinal Cohort. The general sample design strategy for this component of the sample involved subsampling students selected for the base year with non-zero probabilities related to characteristics of their 1990 schools. Base year students who had dropped out of school between 1988 and 1990 were subsampled with certainty (their probabilities of selection were set equal to one). Base year students attending school in 1990 were subsampled with probabilities related to the number of other base year students attending the same school. Base year students who were reported to be attending a school with at least 10 other base year students were sampled with certainty. All other students were sampled with probabilities greater than zero, but less than one.

Including nonrespondents, the NELS:88 base year sample comprised 26,432 students. Of these, 96 were deemed out of scope for the 1990 first follow-up (including students who had died or moved out of the United States). Among the remaining 26,336 students, 348 were found to have dropped out of school;[2] all of these students were selected into the first follow-up with certainty (probability of selection equal to one).

It was determined that the remaining pool of 25,988 students were distributed among 3,967 schools.[3] As had been anticipated, the distribution of these students among schools was highly skewed. It was found that approximately 75 percent of the students (19,568 of 25,988) were attending approximately 23 percent (908 of 3,967) of the schools; each of these schools included at least 11 base year students. All of these 19,568 students were included in the first follow-up with certainty. The remaining 6,420 students were distributed among 3,059 schools with 10 or fewer members of the base year sample. Their sampling probabilities for the first follow-up depended on the number of base year students the school contained. The efficiency of this design relative to one with no subsampling at all was 66.5 percent.[4]

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[2] The 348 dropouts comprise 250 dropouts whose status was confirmed by the student's home, 58 sample members whom the school reported to have dropped out but field interviewers could not locate, and 40 students who were institutionalized. The latter group are not necessarily dropouts in the strict sense of the first follow-up dropout definition because in some cases they were receiving academic instruction. However, they were grouped with the dropouts to ensure that they would remain in the first follow-up sample with certainty.

[3] When the school a student was attending could not be identified, a separate "school" of size one was created. This was the case for 221 students who could not be located and ten students who were in home study. Hence, the number of actual schools was 3,736.

[4] The measure of efficiency was computed as 1/(1 + RV) * 100%, where RV is the relative variance of the weights required to compensate for the different rates of subsampling.

Freshened Sophomore Sample. The second sampling objective was to create a valid probability sample of students enrolled in tenth grade in the 1989-1990 school year; this goal was achieved by a process we have termed "freshening." The freshening procedure was carried out in four steps:

1. For each school that contained at least one base year tenth grade student selected for interview in 1990, a complete alphabetical roster of all tenth grade students was obtained.

2. For each base year sample member, we examined the next student on the list; if the base year student was the last one listed on the roster, we examined the first student on the roster (that is, the roster was "circularized").

3. If the student who was examined was enrolled in the eighth grade in the U.S. in 1988, then the freshening process terminated. If the designated student was not enrolled in the eighth grade in the U.S. in 1988, then that student was selected into the freshened sample.

4. Whenever a student was added to the freshened sample in step 3, the next student on the roster was examined and step 3 was repeated. The sequence of steps 3 and 4 was repeated (adding more students to the freshened sample) until a student who was in the eighth grade in the U.S. in 1988 was reached on the roster.

The freshening process could yield zero, one, or more than one new sample member in a given school. Altogether, 1,229 new students were added to the tenth grade sample--on average, just less than one student per school. Some of these freshened students were dropped in the subsampling process (described below) either because they themselves were not included in the subsample or because the base year student to whom they were linked was not included. Some 1,043 students selected through the freshening procedure remained in the final first follow-up sample.

Subsampling the Eighth-Grade Cohort and Freshened Sophomore Samples. After the initial selection of the longitudinal cohort, the combined longitudinal-freshened sample was further subsampled. The students dropped from the first follow-up as a result of subsampling were also excluded from the second follow-up. Two categories of sample members were subsampled: 1) students who had transferred out of the school from which they had initially been selected for the first follow-up sample; and 2) first follow-up nonrespondents who were classified as potential dropouts.

Transfer students were subsampled as a cost-saving measure. Because of the large number of transfer students and the high costs of obtaining questionnaires from them, NORC selected a 20 percent subsample of transfer students in the spring of 1990. Of the 1,991 transfers, 386 were retained and 1,605 were dropped from the sample.

A fifty percent subsample of "potential dropouts" was drawn after the end of the regular data collection period in the spring of 1990. The subsampling encompassed those students who had not been located in the data collection phase and those who had been absent on both survey and makeup days. Those selected into the subsample were the object of renewed follow-up efforts to identify any "hidden dropouts" in these categories of cases. There were 742 "potential dropout" cases, of whom 357 were retained in the sample and pursued in the final data collection period of the study. In the course of final data collection, we did indeed find that substantial numbers of these "potential dropouts" (75 of the 357 subsample members) were confirmed as having been dropouts at the time of their school's survey session, and were included as part of the first follow-up dropout study; the remaining 282 were identified as still in school.

As a result of this subsampling, the longitudinal cohort and the tenth-grade freshened student samples were reduced by 1,990 cases, yielding a first follow-up sample size of 20,706 (see Table 3.1.2-1).[5] While this number represents the number of sample members included on the public release data file, additional students--the 340 members of the sample of base year ineligibles found to be eligible or out-of-scope in the first follow-up were added to the second follow-up's re-release of the first follow-up sample files. Of the revised 20,840 sample, 855 represent the first follow-up freshened sample, 19,645 represent the longitudinal cohort that began with eighth graders in 1988, 312 represent the base year ineligibles later found to be eligible, and 28 represent the base year ineligibles found to be out-of-scope.

Sample of Base Year Ineligibles. The NELS:88 base year sample excluded students for whom the NELS:88 survey instruments would be unsuitable (i.e., mentally handicapped students and students not proficient in English) and students whose physical or emotional problems would have made participation in the survey unduly difficult. Data were obtained on the numbers of such ineligibles to facilitate inferences to the larger population that includes such persons. About 5.3 percent of the students at base year sample schools were excluded from participation. Of these, 57 percent were excluded because of mental disability, another 35 percent because of language barriers, and 8 percent because of physical disability. Further detail on sample eligibility in the base year is provided in the *NELS:88 Base Year Sample Design Report* and in the *NELS:88 First Follow-Up Final Technical Report*. Chapter III of the *NELS:88 Second Follow-Up: Student Component Data File User's Manual* includes additional detail about sample freshening, student subsampling, and base year sample ineligible students.

There were several reasons for adding a sample of ineligibles to the first follow-up design. One such consideration was a change in eligibility rules between base year and first follow-up. Because a Spanish translation of the first follow-up questionnaire was developed and because the requirement that standardized tests be administered was waived for those who could not complete them in English, it was feasible for some of the base year ineligibles to take part in the first follow-up who could not have taken part in the base year. Another consideration was the need to accommodate eligibility change,[6] as another means of providing for a probability sample of 1992 twelfth graders. Students whose ineligibility status had changed between 1988 and 1990 also could be surveyed in the first follow-up. However, even for those excluded base year students who still could not complete the NELS:88 instruments, collecting additional demographic information would help to better describe any undercoverage biases, while collecting school enrollment status information would facilitate a more accurate estimation of a national dropout rate between grades eight and ten.

Because the ineligibles had been excluded prior to the base year sample selection, NORC simulated the selection of a base year sample that included these ineligibles. Within each base year

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[5] The provisional first follow-up sample size of 20,706 has been amended to include 340 base year ineligible students who were reclassified as eligible or out of scope in the first follow-up. Additionally, data for 23 sampling errors found among the students freshened into the sample or out of scope in the first follow-up as well as four additional sampling errors have been deleted. Finally, 179 first follow-up freshened dropouts have been excluded from the public use files. Accordingly, the revised first follow-up sample size is 20,840.

[6] While in general the tendency is for certain classes of ineligible students to become eligible (for example, speakers of other languages come to be proficient in English), in rare instances eligible 1987-88 eighth graders had become ineligible in the first or second follow-ups (for example, because of mental or physical problems engendered by an accident). We have treated students who were outside the United States in the 1991-92 school year as out-of-scope for the second follow-up, but they retain their overall sample eligibility. Future waves of NELS:88 may wish to reassess their eligibility for participation in those data collection efforts.

Table 2.1.2-1
First follow-up sample by race breakdown[a]

	First Follow-Up Initial Selections	Freshened Sample	Dropped in final Subsampling[b]	Final Sample
All	21,474	1,229	1,997	20,706
Asian/Pacific Islanders	1,367	89	141	1,315
Hispanics	2,828	246	323	2,751
American Indians	278	28	32	274
Blacks	2,265	235	280	2,220
Whites	14,349	554	1,061	13,842
Missing/Refused	387	77	160	304

[a] Figures in this table represent the first follow-up constructed variable frequencies. This variable--race identified at the time of sampling--is not the same variable included on the data files and reported in the codebooks. This variable was used because it was the only race variable that was constructed for initial sample members dropped in final subsampling.

[b] 1,821 members of the eighth-grade longitudinal cohort and 169 freshened tenth graders were dropped in Phase 3 subsampling. In addition, 7 members of the eighth-grade longitudinal cohort were discarded because they were selected in error during the base year.

[c] This table is based on the original (1992-1993) release of the first follow-up student file. The second follow-up (1994) release of the first follow-up student data contains a slightly different sample number than the original release. Additional details about the sample numbers of the two releases are on page 4 of section 2.1.2, under the subheading "Subsampling the Eighth-Grade Cohort and Freshened Sophomore Samples."

sample school, we applied the same within-school sampling rates that had been used in selecting the base year sample students. A total of 674 ineligibles were selected for the simulated base year sample by the following procedure, with a final sample size of 653. The eligibility status of these students was reassessed, their school enrollment status and basic demographic characteristics were determined, and student questionnaire data were obtained from those deemed able to complete a questionnaire. These questionnaires will be released with data from the rest of the first follow-up sample in the final release of the second follow-up data on the 1994 electronic codebook. Student questionnaire data from those who were successfully surveyed will be included in that combined base year/first follow-up/second follow-up data release. (For details of the sampling methodology and composition of the base year ineligibles sample, see the *NELS:88 First Follow-Up Final Technical Report*; for a statement of the data analysis implications of undercoverage of the limited English language proficient population, see section 3.4.1 of this manual.)

2.2 Calculation of Weights

The general purpose of weighting survey data is to compensate for unequal probabilities of selection and to adjust for the effects of nonresponse. Weights are often calculated in two main steps. In the first step, unadjusted weights are calculated as the inverse of the probabilities of selection, taking into account all stages of the sample selection process. In the second step, these initial weights are adjusted to compensate for nonresponse; such nonresponse adjustments are typically carried out separately within multiple weighting cells. This is the process that was applied to weighting NELS:88 data in all rounds.

2.2.1 Calculation of Base Year Sample Weights

The base year weights were based on the inverse of the probabilities of selection into the sample and on nonresponse adjustment factors computed within weighting cells. Two different weights were calculated to adjust for the fact that not all sample members have data for all instruments. The weight BYQWT applies to 24,599 student questionnaires (and is also used in conjunction with parent data), while BYADMWT applies to the 1,035 school administrator questionnaires (17 base year school principals failed to complete a school questionnaire). These weights project to the population of approximately 3,008,080 eligible eighth graders in public, Catholic, and other private schools in 1988.

The base year weighting procedures consisted of two basic stages:

Stage 1. Calculation of a preliminary base year weight based on the inverse of the product of the probabilities of selection for the base year sample.

Stage 2. Adjustment of this preliminary weight to compensate for "unit" nonresponse, that is, for noncompletion of an entire school questionnaire or student questionnaire. The unit varied depending upon the weight being adjusted.

The nonresponse-adjusted school weight was derived as the product of the school's preliminary weight times a nonresponse adjustment factor intended to adjust for the fact that some of the sampled schools did not return a completed questionnaire. The preliminary weight for students was based upon the inverse of the probability that the student's school was selected into the sample multiplied by the inverse of the probability that the student was sampled within the school. The nonresponse-adjusted student weight was derived as the product of the student's preliminary weight times a nonresponse adjustment factor intended to adjust for the fact that some of the sampled students did not participate, that is, did not return a completed questionnaire. Statistical properties of the base year weights are presented in Table 2.2.1-1.

Each school appearing on the NELS:88 base year school file, and each student appearing on the NELS:88 student file, has a value for the final weight variable. The weight represents the probability of selection into the sample, in addition to a factor that adjusts for nonresponse. Thus, the weight serves the purpose of allowing a particular case to represent other nonsampled cases within its sampling stratum, and to represent nonresponding cases similar to it in various respects. Because separate final student and school weights have been provided, the construction of each will be considered separately in the following discussion.

Base Year School Weights. The final school weight, BYADMWT, was derived using a multistage process. First, an initial weight--which represented the inverse of the school's selection probability--was attached to each school record in a file containing records for all eligible schools in the NELS:88 sample. A logistic regression procedure was used to estimate (in terms of a probability of nonresponding) the degree to which each of the responding schools resembled a nonresponding school. This estimated probability of nonresponse was the first adjustment factor applied to a school's weight.

Table 2.2.1-1
NELS:88 base year statistical properties of sample case weights

Weight	School BYADMWT	Student BYQWT
Mean	37.46	122.29
Variance	2,109.17	4,359.16
Standard deviation	45.92	66.02
Coefficient of variation (×100)	122.59	53.99
Minimum	1.54	2.44
Maximum	387.30	836.91
Skewness	2.69	2.18
Kurtosis	9.47	16.32
Sum	38,774.12	3,007,779
Number of cases	1,035	24,595

Next, a polishing procedure--multi-dimensional raking--further adjusted the weights to sum to known population totals within strata. Estimating the nonresponse probability for each of the responding schools was possible because key background information on almost all of the nonresponding schools was available.

The final result of these procedures was a weight for each of the responding schools adjusted to compensate for nonresponse. For the purpose of adjusting the school weight, a nonresponding school was defined as a school for which both school administrator questionnaire data and student questionnaire data were unavailable.

Base Year Student Weights. The final student weight, BYQWT, was also derived using a multistage process. A design weight for each eligible student on a participating school's sample roster represented the student's probability of selection within the school. A student-level nonresponse adjustment factor was calculated by forming weighting cells based upon the combination of certain levels of variables representing school type, region, ethnicity, and gender. For each student, the product of a preliminary school weight and the student's design weight was formed. (The preliminary school weight was slightly different from BYADMWT. BYADMWT was adjusted to accommodate the 17 schools for which school administrator questionnaire data were unavailable though student questionnaire data had been obtained. The preliminary school weight eliminated this step in the adjustment process. Thus, it is appropriate for application to the 1,052 schools with student questionnaire data available.) This product was summed for participating and nonparticipating students within weighting cells. The ratio of the sums for all sampled students to participating students was used as the nonresponse adjustment factor for each student's design weight.

2.2.2 Calculation of First Follow-Up Sample Weights

Two weights were developed for the overall NELS:88 first follow-up sample. The first, or *basic*, weight applies to all members of the first follow-up sample who completed a first follow-up questionnaire, regardless of their participation status in the base year. The basic weight (F1QWT) allows projections to the population consisting of all persons who were either in the eighth grade during the 1987-88 school year or in the tenth grade during the 1989-90 school year. Thus, this population encompasses both populations of prime analytic interest--the population of 1990 tenth graders (including those who were not eighth graders in 1988) and the 1988 eighth-grade population (excluding any additional 1990 tenth graders). By selecting the appropriate sample members, analysts can use this basic weight to make unbiased projections to the first of these populations (i.e., 1990 tenth graders). The second, or *panel*, weight applies to all members of the first follow-up sample with complete data from both rounds of the study. The panel weight (F1PNLWT) can be used to make projections to the other key analytic population--1988 eighth graders (excluding those ineligible for base year data collection).

Basic First Follow-Up Weight (F1QWT). Calculation of the basic weight required somewhat different procedures for the three groups of the full first follow-up sample--1988 eighth graders deemed eligible for the base year survey, 1990 tenth graders who were not in the eighth grade in 1988, and 1988 eighth graders who were deemed ineligible for participation in the base year but were considered eligible to participate in the first follow-up.

Eligible 1988 Eighth Graders. With a few exceptions, those individuals who were eligible for the base year survey and selected into the base year sample in 1988 remained eligible for the first follow-up sample. (The exceptions involved cohort members who died, left the country, or suffered grave impairments between 1988 and 1990.)

The first step in constructing a basic weight for these sample cases involved developing a design weight that reflected the selection probabilities for each case. Each case selected for the base year sample (including base year nonparticipants) was assigned a base year design weight (BYDW) based on his or her probability of selection into the base year sample. The base year design weight reflected both the probability of selecting the base year school (inflated to adjust for school-level nonresponse) and the probability of selecting the student given that the school had been selected and agreed to participate. The base year design weight does not adjust for student-level nonresponse. The base year design weight was then multiplied by the inverse of the case's probability of selection for the first follow-up sample; the latter probability took into account the subsampling done during the first follow-up. More formally, the first follow-up design weight (FFUDW) for student i was defined as:

$$\mathrm{FFUDW}_i = \mathrm{BYDW}_i \times (1/P_{1i}),$$

in which P_{1i} represents the probability of selection for the first follow-up sample.

The next step was to adjust the design weight for first follow-up nonresponse. Weighted response rates were computed for subgroups of this portion of the first follow-up sample. (The weight used was the first follow-up design weight.) The subgroups were:

a. Out of sequence students (i.e., those who were not in tenth grade in 1990);
b. Dropouts identified at the time of initial first follow-up sampling;
c. Students who had transferred out of the first follow-up school from which they were selected;
d. Potential dropouts;
e. Other students initially classified as attending schools with 3 or fewer base year students;
f. Other students initially classified as attending schools with 4 or more base year students.

The product of the inverse of the relevant response rate and the first follow-up design weight served as a preliminary adjusted weight. These preliminary weights were then further adjusted to meet overall and marginal targets for the sums of the weights. The target for a given marginal category was the sum of the final base year weights for all base year sample cases in that category. The categories were based on base year school type (public, Catholic, NAIS private, and other private), student sex (male and female), race/ethnicity (non-Hispanic White, American Indian, Hispanic, Asian, non-Hispanic Black, and unknown), and base year region (Northeast, Midwest, South, and West). The preliminary adjusted first follow-up weights were further adjusted until the sum of the weights for each marginal category (e.g., males) was equal to the corresponding sum of the final base year weights for that group. This final adjustment procedure is referred to as multidimensional raking.[7]

1990 Tenth Graders who were not 1988 Eighth Graders. All members of this population who are included in the first follow-up sample were selected through the freshening process. This process linked each 1990 tenth grader who was not a 1988 eighth grader to a student who was an eighth grader in 1988. The first follow-up design weight (FFUDW) for each student in the freshening sample is therefore equal to the first follow-up design weight of the base year student to whom he or she was linked. For purposes of variance estimation, both students are considered members of the same stratum and school.

The nonresponse adjustment for this portion of the sample involved two steps. First, the first follow-up design weight (FFUDW) for responding students in the freshening sample was inflated by a factor equal to the inverse of the weighted response rate for this portion of the sample. (The first follow-up design weight was the weight used in computing this response rate.) Second, the marginal distributions of the weights of the respondents were adjusted, by raking, to match the corresponding distributions for all cases selected through freshening (including nonrespondents). The two dimensions used in the raking procedure were sex and race/ethnicity (non-Hispanic White, American Indian, Hispanic, Asian, non-Hispanic Black, and unknown as the categories).

1988 Ineligible Eighth Graders who were Eligible for the First Follow-Up. A number of students who were not capable of participating in the base year were eligible for participation in the first follow-up. F1QWTs for these students were calculated during the course of the second follow-up weighting process and were developed using several of the second follow-up procedures. These procedures are discussed in more detail in section 3.2 of this manual.

The first follow-up design weight was obtained by dividing the base year design weight by .42 to allow for the subsampling that was done for this group. Nonresponse adjustment cells were defined based on a combination of their base year and first follow-up status (see step 2 in section 3.2 of this manual), gender and race (API/Hispanic, other). Each respondent's first follow-up design weight was then multiplied by the inverse of the weighted response rate (using the first follow-up design weight) for their cell. This adjusted weight serves as their F1QWT.

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[7] Multidimensional raking was also used in the base year weighting process. Although it is generally true that the base year weight for a student should be less than the first follow-up weight, this relationship may sometimes be reversed. This is a consequence of the raking procedure. The use of raking may also sometimes produce a reversal of the ordering for panel weights (described in the next section) relative to the basic first follow-up weight; that is, the first follow-up panel weight for an individual may be less than the individual's basic first follow-up weight.

First Follow-Up Panel Weight (F1PNLWT). The panel weight was developed only for those cases who were selected for both the base year and first follow-up samples and who provided complete data in both rounds. The same procedures used in developing the basic first follow-up weight for 1988 eighth graders selected for the base year sample were applied to the subset of them for whom complete data were obtained in both rounds. As with the basic first follow-up weight, the target sum of weights for the panel weight was the sum of the final base year weights for all base year sample cases who remained eligible for the first follow-up sample. The same six nonresponse adjustment groups and multidimensional raking procedures used in calculating the basic first follow-up weight were also used in calculating the panel weight.

Results of Weighting. To check the sample case weights, we analyzed the statistical properties of the weights; Table 2.2.2-1 displays the mean, variance, standard deviation, coefficient of variation, minimum, maximum, skewness, and kurtosis for both of the weights included on first follow-up data files.

Users should note that compared to the base year questionnaire weight (BYQWT), the first follow-up questionnaire (F1QWT) and panel (F1PNLWT) weights are larger, on average, and more variable. (For BYQWT, refer to Table 2.2.1-1 above.) This mostly reflects the effect of subsampling students at different rates depending upon the number of other NELS:88 students with whom they were clustered in their first follow-up schools.

Table 2.2.2-1
NELS:88 first follow-up statistical properties of sample weights

WEIGHT	F1QWT	F1PNLWT
Mean	165.88	172.62
Variance	46,249.54	52,603.86
Standard Deviation	215.06	229.36
Coefficient of Variation (×100)	129.65	132.86
Minimum	2.14	2.26
Maximum	6,996.81	7,479.71
Skewness	10.89	11.22
Kurtosis	205.24	214.14
Sum	3,217,069	3,007,813
Number of Cases	19,394	17,424

- This table is based on the original (1992-1993) release of the first follow-up student file. The second follow-up (1994) release of the first follow-up student data contains a slightly different sample number than the original release. Additional details about the sample numbers of the two releases are on page 4 of section 2.1.2, under the subheading "Subsampling the Eighth-Grade Cohort and Freshened Sophomore Samples."

2.3 Standard Errors and Design Effects

Component-specific tables of standard errors and design effects for the base year, first follow-up, and second follow-up surveys are included in the data file user's manual for each component.

Appendix P

NCES NELS:88 Publications

NCES NELS:88 Publications

ANALYSIS REPORTS.

Hafner, A., Ingels, S.J., Schneider, B., and Stevenson, D.L. ***A Profile of the American Eighth Grader***, June 1990; NCES 90-458.

Hoachlander, E.G. ***A Profile of Schools Attended by Eighth Graders in 1988***, September 1991; NCES 91-129.

Bradby, D. ***Language Characteristics and Academic Achievement: A Look at Asian and Hispanic Eighth Graders in NELS:88***, February 1992; NCES 92-479.

Horn, L., and Hafner, A. ***A Profile of American Eighth-Grade Mathematics and Science Instruction***; June 1992; NCES 92-486.

Horn, L., and West, J. ***A Profile of Parents of Eighth Graders***, July 1992; NCES 92-488.

Kaufman, P., and Bradby, D. ***Characteristics of At-Risk Students in NELS:88***, August 1992; NCES 92-042.

McMillen, M. ***Eighth to Tenth Grade Dropouts***, 1992; NCES 92-006.

Owings, J., and Peng, S. ***Transitions Experienced by 1988 Eighth Graders***, 1992. NCES 92-023.

Green, P.J. ***High School Seniors Look to the Future, 1972 and 1992***, 1993; NCES 93-473.

McMillen, M., Hausken, E., Kaufman, P., Ingels, S., Dowd, K., Frankel, M. and Qian, J. ***Dropping Out of School: 1982 and 1992***, Issue Brief Series, 1993; NCES 93-901.

Rasinski, K.A., Ingels, S.J., Rock, D.A., Pollack, J. ***America's High School Sophomores: A Ten Year Comparison, 1980 - 1990***, 1993; NCES 93-087.

Green, P.J., Dugoni, B.L., Ingels, S.J. ***Trends among High School Seniors, 1972-1992***, forthcoming, 1994; NCES 94-380.

Green, P.J., Dugoni, B.L., Ingels, S.J., and Camburn, E. ***A Profile of the American High School Senior in 1992***, forthcoming, 1994; NCES 94-384.

Hoffer, T. ***High School Seniors' Instructional Experiences in Science and Mathematics***," forthcoming, 1995; NCES and NSF.

Ingels, S.J., Plank, S.B., Schneider, B., and Scott, L.A. ***A Profile of the American High School Sophomore in 1990***, 1994; NCES 94-086.

Myers, D., and Heiser, N. ***Students' School Transition Patterns between Eighth and Tenth Grades Based on NELS:88***, forthcoming, 1994; NCES 94-137.

Rasinski, K.A. ***The Effect of High School Vocational Education on Academic Achievement Gain and High School Persistence: Evidence from NELS:88***, 1994; Report to the Office of Research, U.S. Department of Education.

Rock, D.A., Owings, J.A., and Lee, R. ***Changes in Math Proficiency Between 8th and 10th Grades.*** Statistics in Brief series, 1994, NCES 93-455.

Scott, L.A., Rock, D.A., Pollack, J.M., and Ingels, S.J. ***Two Years Later: Cognitive Gains and School Transitions of NELS:88 Eighth Graders***, forthcoming, 1994; NCES 94-436.

RELEASED E.D. TABULATIONS.

Rasinski, K.A., and West, J. ***NELS:88: Eighth Graders' Reports of Courses Taken During the 1988 Academic Year by Selected Student Characteristics***, July 1990; NCES 90-459.

Rock, D.A., Pollack, J.M., and Hafner, A. ***The Tested Achievement of the National Education Longitudinal Study of 1988 Eighth-Grade Class***, April 1991; NCES 91-460.

USER'S MANUALS/TECHNICAL REPORTS/METHODOLOGY MONOGRAPHS.

Ingels, S.J., et al. ***NELS:88 Base Year Field Test Report***. 1987. Chicago: NORC. ERIC ED 289-897.

Ingels, S.J., Abraham, S., Rasinski, K.A., Karr, R., Spencer, B.D., and Frankel, M.R. ***NELS:88 Base Year Data File User's Manuals***:

STUDENT COMPONENT:	March 1990; NCES 90-464
PARENT COMPONENT:	March 1990; NCES 90-466
SCHOOL COMPONENT:	March 1990; NCES 90-482
TEACHER COMPONENT:	March 1990; NCES 90-484

Ingels, S.J., Rasinski, K.A., Frankel, M.R., Spencer, B.D., and Buckley, P. ***NELS:88 Base Year Final Technical Report***, 1990; Chicago: NORC.

Spencer, B.D., Frankel, M.R., Ingels, S.J., Rasinski, K.A., and Tourangeau, R. ***NELS:88 Base Year Sample Design Report***, August 1990; NCES 90-463.

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Technical Report:* *NELS:88 Second Follow-Up Final Technical Report
Technical Report:* *NELS:88 Second Follow-Up Sample Design Report
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Technical Report:* *NELS:88 Second Follow-Up School Effectiveness Study Data File User's Manual

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